AMATEUR RADIO

JULY 1963

Vol. 31, No. 7

2/-

Registered at G.P.O., Melbourne, for transmission by post as a periodical

NEW VALVES AT BARGAIN PRICES

1A3	2/6	10 a £1	2X2	5/-	5 a £1	6G8G	26/-		7E6	3/6	7 a £1
1A5	5/-	5 a £1	3A4	10/-		6J6	10/-		7W7	2/6	10 a £1
1C7	3/-	7 a £1	3A5	10/-		6K7	5/-	5 a £1	12A6	4/-	6 a £1
1D5GT	5/-	5 a £1	3S4	10/-		6K8GT	12/6		12AH7	5/-	5 a £1
1D8	7/6	3 a £1	5U4GB	14/6		6L7	5/-	5 a £1	12AT7	15/-	
1F5	10/-		5Y3GT	13/9		6SA7	7/6		12AU7	15/-	
1H4	5/-	5 a £1	6AG7	12/6		6SC7	7/6		12C8	5/-	
1H5	5/-	5 a £1	6AJ5	7/6	3 a £1	6SF5	7/6	3 a £1	12H6	3/6	
1H6	5/-	5 a £1	6AL5	14/-		6SH7	4/-	5 a £1	12J5	5/-	5 a £1
1K4	5/-	5 a £1	6AM6	(EF91)	10/-	6SJ7	12/6		12SA7GT	10/-	
1K5	5/-	5 a £1	6B8	metal	17/6	6SN7	12/6		12SC7	5/-	5 a £1
1K7	5/-	5 a £1	6BE6	15/-		6SQ7GT	22/-		12SK7	5/-	5 a £1
1LN5	(CV781)		6BQ5	17/-		6SS7	7/6	3 a £1	12SQ7	5/-	
	5/-	5 a £1	6C4	5/-	5 a £1	6U8	17/-		12SR7	5/-	5 a £1
1P5	2/-	10 a £1	6C8	10/-		6V4	11/4		14A7	3/6	7 a £1
1Q5	5/-	5 a £1	6CH6	2/-		6V6GT	16/-		1625	5/-	5 a £1
1S2	18/-		6CM5	25/-		6X4	10/-		1626	5/-	5 a £1
1S5	10/-		6F5	7/6		6X5	15/-		1629	5/-	5 a £1
1T4	10/-		6F6	12/6		6Y6	5/-	5 a £1	2051	5/-	
2A5	7/6		6F8	5/-		7A8	2/-	11 a £1	30	1/3	
2A6	7/6		6G6G	7/6		7C5	5/-	5 a £1	35T	30/-	
2D21	12/-					7C7	2/-	12 a £1	5763	28/-	

6146	£3/10/-		EF72	5/-	5 a £1						
6360	£2/10/-		EF73	5/-	5 a £1						
717A	7/6	3 a £1	EF86	28/-							
807	7/6	3 a £1	EL41	10/-							
808	10/-		EY91	5/-							
815	15/-		KT61	(6V6)	15/-						
830B	15/-		QQE03/12	47/6							
832A	19/6		QQE04/20	£3½							
866	32/6		QQV06/40	97/6							
954	5/-	5 a £1	RL18	7/6	3 a £1						
955	5/-	5 a £1	UL41	7/6	3 a £1						
956	5/-	5 a £1	VR53	5/-	5 a £1						
958A	2/6	10 a £1	VR101	5/-	5 a £1						
AV11	2/11		VR102	5/-	5 a £1						
EA50	2/-	10 a £1	VR103	5/-	5 a £1						
EC91/6AQ4	10/-		VR105	10/-							
ECC35	20/-		VR136	2/-	12 a £1						
ECH33	20/-		VR137	2/6							
EF36	5/-	5 a £1	VT25	5/-							
EF39	5/-	5 a £1	VT78	3/6							
EF70	5/-	5 a £1	VT127	4/11	5 a £1						
			VT501	7/6	3 a £1						

SCOTCH BRAND RECORDING TAPE

Brand New, Bankrupt Stock
on 5¾" Reels
1275 feet, **42/-**; usual price 62/-.
850 feet, **30/-**; usual price 42/-.

LSG11 SIGNAL GENERATOR

120 Kc.-390 Mc.

Freq. range (six bands): 120 Kc. to 130 Mc. on fundamentals; 120 to 390 Mc. on harmonics. Mod. freq. 400 and 1,000 c.p.s. Tubes: 12BH7, 6AR5. Rectifier: half wave selenium. Provision for crystal oscillator (xtal not supplied), 1 to 15 Mc. 100, 117 or 230v. a.c. input, 50/60 c.p.s. Size: 7½ x 10¾ x 4½ in. Weight: 6 lb.

Price: LSG11—£16/17/6 inc. tax

CO-AXIAL CABLE

50 ohm, UR67, 3/8" diam., in 25 yd. Rolls **30/-**; or 1/6 yard.
52 ohm UR43, 3/16" diam., in 12 yd. Rolls **15/-**; or 1/6 yard.
71 ohm UR32, 3/16" diam., in 100 yard Rolls **£7/10/0.**
72 ohm UR70, 3/16" diam., in 27 yd. Rolls **30/-**; or 1/6 yard.

TRANSISTOR RADIO BATTERY

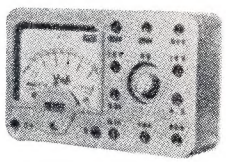
9volt, Type 216 (BL-006P). Well known make. **4/9 each.** Discount for quantity.

Log Books .... 5/6, postage extra

BARGAINS! BARGAINS!

Rienartz Coils, RC6 .... **12/6 each**
Sato Knobs, black & white, ¼" shaft, **1/6**
Plastic Valve Caps, suit 807, 866, **3/6 ea.**
Crystal Earphone, suit Trans. Radio, **6/6**
Circuits for CV1935 Transceivers, **10/-**
Dial Globes, Madza, **9/-** per box of 10
Dial Globes, 40 mA. .... **1/- ea.**
Egg Insulators ceramic, 1½" & 1", **9d. ea.**
Three-core domestic Cable **2/3 a yard**
Hook-up Wire, 10/010, red, black and Green, **4d. yard**, or **200 yd. roll £3.**
Earphone Inserts No. 2, actuating diaphragm type, ideal as small spkr., **7/6**
Pye dble. bulkhead mtg. Coax Con., **2/6**
Pye Coax Connectors .... **4/- pair**
Crystal Sockets, DC11 .... **2/6 each**
Crystal Sockets, FT243 and min., **2/9 ea.**
SCR522 28-volt Genemotor power sup., ... **20/-**, 5/- packing
Low Impedance Headphones **12/6 pair**
Vibrators, Oak/M.S.P., 6 volt, synchronous, 7-pin, AV5211R **£1**
Octal Plug and Socket, American Ampenol, in metal screw case, **8/6 each**
Scope Soldering Irons, to clear .. **55/-**
Complete with transformers **£5**
Ceramic Variable Condensers, small, 5 to 60 pF., Eddystone **28/-**
Ceramic ¼" Shaft Couplings **3/6**
Vibrators, 4-pin 6 volt, non-synchronous, M437 .... **42/-**
Vibrators, 4-pin 12 volt, non-synchronous, M438 .... **42/-**
Valve Socket and Shield, 9-pin McMurdo **4/6**
Ceramic 7-pin Valve Sockets, **2/6 each**
Ceramic 9-pin Valve Sockets, **2/6 each**
EF50 Ceramic Socket **3/6**
EA50 Valve Sockets **1/6**

TECH MULTIMETER



300 μA. movement.
AC and DC voltages: 0-10, 0-50, 0-250, 0-500, 0-1000v.
Current ranges (mA.) 0-1, 0-100, 0-500 mA.
Ohms range: 0-100,000 ohms.
Size: 3¾ x 2½ x 1¼ inches.
Complete with leads.

Price only £3/1/0, post paid.

POWER CHOKES

12 Henrys, 125 mA., 275 Ohms, **£2/8/0**
12 Henrys, 100 mA., 290 Ohms, **£1/12/0**

RECEIVERS

Type R-4/ARR2, 234 to 238 Mc/s., **£5**
BC733-D, with valves, ... **£4/10/0**

METERS

0-50 mA., 3¼" round, 2½" hole, brand new .... **30/-** ea.
MR2P 0-1 mA., 1½" square, **35/-** inc. tax
MR65 0-1 mA., 3" square, **47/6** inc. tax
MO65 0-1 mA., 3¼" round, **35/-** inc. tax

AMERICAN POTENTIOMETERS

American Bradley, 2" long, ¼" shaft, 1" diam. Available in following sizes: 20,000, 25,000, 30,000, 50,000, 100,000, 250,000 ohms, ½, 1 and 2 megohms.
Price 2/6 each

High Impedance Headphones, suitable Crystal Sets **25/-**
Belling Lee Coax Plug & Socket, **7/6 pr.**
Midget Variable Condenser, RMG1, 10 to 415 pF. **25/-**

HAM RADIO SUPPLIERS

5A MELVILLE STREET, HAWTHORN, VICTORIA Phone 86-6465

We sell and recommend Leader Test Equipment, Pioneer Stereo Equipment and Speakers, Hitachi Radio Valves and Transistor Radios, Kew Brand Meters, A. & R. Transformers and Transistor Power Supplies, Ducon Condensers, Welwyn Resistors, etc.

North Balwyn tram passes corner. Money Orders and Postal Notes payable North Hawthorn P.O. 5/- Packing Charge.

"AMATEUR RADIO"

JOURNAL OF THE WIRELESS INSTITUTE OF AUSTRALIA. FOUNDED 1910.

JULY 1963
Vol. 31, No. 7

Editor:
K. M. COCKING VK3ZFQ

Publications Committee:
G. W. Baty (Secretary) VK3AOM
A. W. Chandler (Circulation) VK3LC
S. T. Clark VK3ASC
R. S. Fisher VK3OM
R. W. Higginbotham VK3RN
E. C. Manifold VK3EM
K. E. Pincott VK3AFJ

Advertising Enquiries:
C/o. P.O. Box 36, East Melbourne, C.2, Vic.
OR
Mrs. BELLAIRS, Phone 41-3535. 478 Victoria Parade, East Melbourne, C.2, Victoria. Hours 10 a.m. to 3 p.m. only.

Publishers:
VICTORIAN DIVISION W.I.A.,
Reg. Office: 65a Franklin St., Melbourne, Vic.

Printers:
"RICHMOND CHRONICLE," Phone 42-2419. Shakespeare Street, Richmond, E.1, Vic.

★

All matters pertaining to "A.R.," other than subscriptions, should be addressed to:
THE EDITOR,
"AMATEUR RADIO,"
P.O. BOX 36,
EAST MELBOURNE, C.2, VIC.

Acknowledgments will be sent following the Committee meeting on the second Monday of each month. All Sub-Editors should forward their articles to reach "A.R." **before** the 8th of each month. Any item received after the Committee meeting will be held over until the next month. Publication of any item is dependent upon space availability, but in general about two months may elapse before a technical article is published after consideration by the Publications Committee.

★

Members of the W.I.A. should refer all enquiries regarding delivery of "A.R." direct to their Divisional Secretary and not to "A.R." direct. Non members of the W.I.A. should write to the Victorian Division, C/o P.O. Box 36, East Melbourne. Two months' notice is required before a change of mailing address can be effected. Readers should note that any change in the address of their transmitting station must, by P.M.G. regulation, be notified to the P.M.G. in the State of residence, in addition "A.R." should also be notified. A convenient form is provided in the "Call Book".

★

Direct subscription rate is 24/- a year, post paid, in advance. Issued monthly on the first of the month, January edition excepted.

★

OUR COVER

Turn to page 10 for a Profile of VK3ZEB, Ray Bedson.

FEDERAL COMMENT

★

HISTORY AND TRADITION

Every great Institution has records of past events. Events which have served as milestones in its history. By the same token every organisation worth its salt accumulates over the years many traditions of which it is justly proud.

The Wireless Institute of Australia is such an organisation, a fact which has helped the Radio Amateurs of this country to attain the prestige and privilege of being members of the world wide Amateur Radio Service —an integral part of the international communications system.

We, the individual members of such a worth while organisation, are charged with the duty of ensuring that:—

No gaps are left in the historical records of the past and present.

Great traditions are upheld, created and recorded.

Future members can look back and admire the work and service of the present day Amateur, as we do those members who have passed this way before us.

With this purpose in mind, your Federal Executive will publish extracts of our historical records in this, your magazine, in the hope that interested persons who can fill any gaps which appear to exist in our records will communicate same to us for inclusion therein.

To those persons who have already, or will in the future, contribute to this worthy object we say—Thank You!

FEDERAL EXECUTIVE, W.I.A.

CONTENTS

D.S.B. and S.S.B. at V.H.F. 2
The Neon Oscillator 5
Standardisation of Frequencies for F.M. Mobile Operation 7
Sideband Topics:
Tube Insurance 11
More Protection 11
Remembrance Day Contest, 1963 8
National Field Day—1963 Version 12
Profile of VK3ZEB 10
Official VK0 Calls, 1963/4 13
Forthcoming Contests:
The Ninth European (W.A.E.) DX Contest, 1963 10
4th All Asian DX Contest, 1963 10
Federal and Divisional Monthly News Reports 18
DX 14
SWL 17
VHF 15
Youth Radio Clubs 17

D.S.B. AND S.S.B. AT V.H.F.

K. WOODWARD. VK2ZAU*

IT is not the intention of this article to debate the merits of sideband transmission over straight a.m. as these are now well established facts. Instead, it is wished to relate the experiments of the author and collaborators in getting their "feet wet" on sideband.

Fig. 1 illustrates the first double sideband transmitter built and tested. Whilst good results were obtained with this circuit the carrier suppression left a lot to be desired, and at 50 Mc. it would seem that improving the suppression might be difficult with the

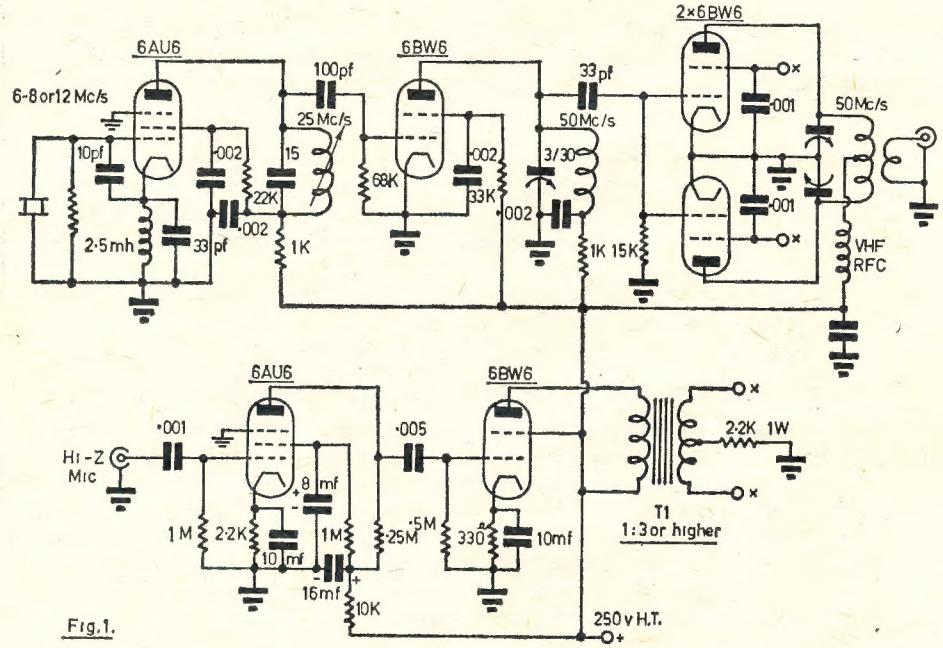


Fig. 1.

circuit configuration. However, jumping ahead a little, the final could be built to conform with that of Fig. 3, using the 6BW6s, and thus obtain a very efficient low power double sideband transmitter.

The circuit is quite straight-forward in the oscillator, multiplier and audio stages, the diverging point being in the final amplifier. The carrier is fed to the 6BW6 valves in parallel, and as the plates are connected in push-pull configuration the carrier is balanced out. The modulating voltage is applied to the screen-grids and according to the instantaneous polarity of this voltage, determines the plate current of either valve, and in this process produces the two sidebands with suppressed carrier. A wide selection of pentodes or tetrodes could be substituted in this circuit. To calculate the peak power output which can be obtained, take the normal class C telephony output power for one valve, as quoted in the valve data book, then multiply it by four.

Take the case where the class C telephony output for a single valve was 50 watts at 600 volts, then with 1200 volts applied to the plates a peak power output of 200 watts is obtainable from the two valves. As the average screen volts are very low, the plate dissipation will not be exceeded, even at double plate voltage. Needless to say, your power supply should be capable of handling the large excursions in loading.

Having proved that double sideband was feasible on 50 Mc., and reasonably simple to receive, the next step was to build up a rig capable of running high power. This was achieved as shown in Fig. 2 by the use of 6DQ6A valves in the balanced modulator. Speech peaks will run the rig slightly past 100 watts input with 600 volts on the plates. At the first stage of testing, this equipment was run with 300 volts on the plates, not very well regulated, and was copied at a distance of 30 miles under novel circumstances.

The transmitting site was VK2ZVL at Lakemba, the receiving site the author's mobile equipped with 50 Mc. whip. At the time, VK2ZVL was using a two element vertical beam and my mobile was not equipped with a b.f.o. The signal was not decipherable as a.m., however a lead from the aerial of a dual-wave transistor set was laid next to the tuneable i.f. mixer and tuned 455 Kc. from the frequency of the tuneable i.f. Thus the local oscillator of the transistor set beat against the signal and gave perfect reception. I hasten to add that the mobile is now complete with b.f.o.

The same audio is used for both Fig. 1 and Fig. 2, the link coupling in Fig. 2 being used as a possible t.v.i. precaution. When used at VK2ZVL's QTH on low power and at VK2ZQX's QTH on high power, no trace of t.v.i. was discernible on any Sydney channel. It will be necessary to try the balance network on either 6DQ6A grid to see which will give the best balance, sometimes a balance trimmer may not be required.

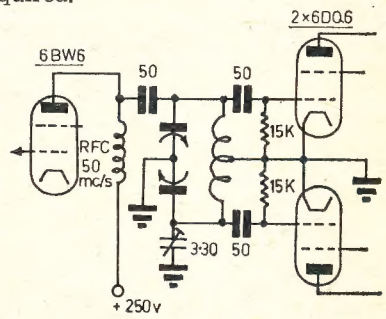


Fig. 3.

While not tried on this rig, Fig. 3 gives a modification which could make tuning of the balanced modulator easier. The capacitive loading of the driver plate circuit makes the choice of the lower grid circuit for the balance capacitor mandatory. For tuning up the final and balancing out the residual carrier, a rectifier and moving-coil meter combination, as shown in Fig. 4, is virtually a must.

Whilst the double sideband transmitters have been featured for simplicity, they have another advantage over s.s.b. in that speech clipping can be used. When speech clipping is used on a d.s.b. signal the readability under adverse conditions is such that a solid contact can be maintained when other-

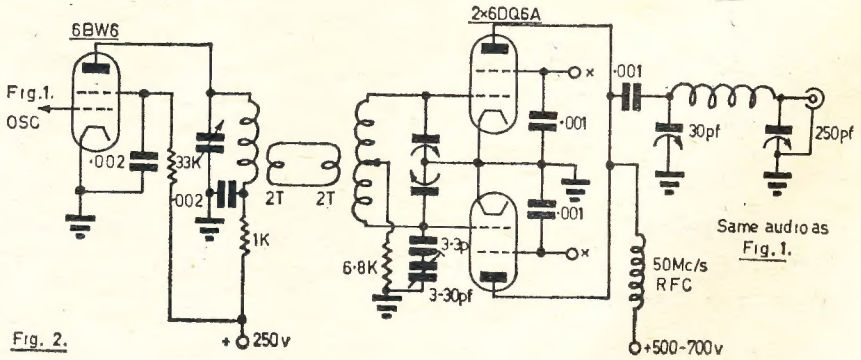


Fig. 2.

* Flat 28, 48 Morehead Street, Redfern, N.S.W.

wise without clipping the signal would not be readable.

When designing d.s.b. transmitters you can help the other fellow on the reception end by suppressing the low frequency components of the speech. This can be brought about by using small coupling capacitors, such as 0.001 μF. between stages. When present research is completed it is hoped to publish details of a mobile transmitter including speech shaping and clipping and also dealing with the problems of sideband reception.

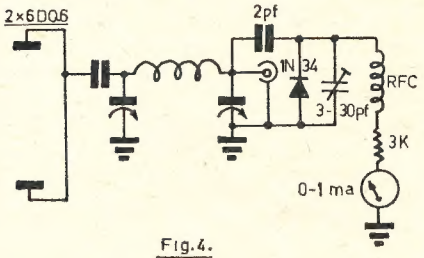


Fig.4.

If not already known, four Amateurs in New South Wales have formed the V.H.F.-D.X. Club to further the progress in long-distance working on v.h.f. bands and to aid this purpose issue a certificate to anyone fulfilling certain performances. The members of the club have tried to pioneer the use of sideband on 50 Mc. in N.S.W. and the circuit in Fig. 5 gives details of the club project being built up by the members.

The idea was to build up an exciter that was compact, simple and capable of driving a linear amplifier to a reasonable power level. Whilst not claimed to be the ultimate in s.s.b. exciters, the first one finished by VK-2ZVL has given quite a good account of itself, both barefoot and driving a linear. Incidentally, this rig is thought to be the first s.s.b. rig on 50 Mc. in N.S.W.; any other claims? Also, to the author's knowledge, the first 50 Mc. d.s.b. in N.S.W. came from the author's shack.

Referring to Fig. 5, V1 combines two functions, carrier oscillator and modulator. The carrier frequency and modulation are applied to the balanced modulator which uses a pair of OA202 silicon diodes. The d.s.b. signal from the balanced modulator is fed to a crystal filter which disposes of the unwanted sideband (lower). V3 combines the function of mixer and class A amplifier at 50 Mc., while V2 is the oscillator multiplier chain to obtain the necessary frequency to convert the s.s.b. generated signal to 50 Mc. The final valve in the exciter can be run in class A or AB1 at 50 Mc. and develops enough drive to run a high power linear. Thus a total of four valves will transmit barefoot a 50 Mc. s.s.b. signal or develop enough power to drive your favourite linear amplifier.

It will be necessary for the prospective constructor to either have access to frequency measuring equipment or to purchase the crystals already ground to frequency. The club purchased 30 odd crystals which were frequency checked and the necessary grinding undertaken. Do not be frightened to grind your own crystals as with the small frequency change to be made, it is very unlikely that you will damage the crystal. Normally it would be necessary to measure the anti-resonant frequency of the crystals, but this seemed difficult at this frequency with the equipment available so we settled for measuring the frequency of each crystal in the same test oscillator with a Bendix frequency meter.

We started with all crystals on the same frequency, Y1 and Y2 being selected at the same frequency. Y3 was then ground for the required separation frequency which should lie between 1.7 Kc. and 2.5 Kc. You can see therefore that this is not so very critical. Y4 is not strictly necessary, but if used its anti-resonant frequency should be at the oscillator (carrier) frequency or a few cycles lower. After the rig is working you could try several crystals if available with the same marked frequency and leave the best resulting crystal in circuit. The function of Y4 is to give increased carrier or unwanted sideband suppression.

The crystals were ground for the originals using a marble slab borrowed from the kitchen and some hand cleaning preparation which allowed me to sneak up on the 1.7 Kc. spacing with quite good accuracy. Whilst the crystals used were approximately 5.7 Mc., they could be any frequency close to this as long as the coils will resonate to the chosen frequency.

Details of T1 and T2 are given, but check with your g.d.o. (allowing for the shielding can) to ensure that the coils will tune to the frequency. In particular be careful when making the bi-flar winding on T1 as if this is made incorrectly nothing will make the balanced modulator work. The original models use all shielded coils. While possibly not entirely necessary, the carrier (when the exciter is driving a ZL linear) is not detectable from VK-2ZVL's transmitter at the author's QTH, so that extra care will pay in results achieved.

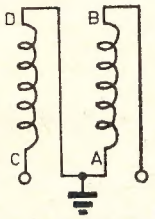


Fig.6. Bifilar winding.

The winding of a bifilar coil is illustrated in Fig. 6. Take two lengths of insulated wire and calling the two starting ends A and C, wind them alongside each other to the required number of turns, the finishing ends being B and D respectively. Now join end D to start A, this junction being earthed; the two remaining wires go to each respective diode in Fig. 5.

ALIGNMENT

This is where care should be thoroughly exercised as a filter rig initially well aligned and stabilised will give long-term enjoyment with no fussy re-adjustment. You will require preferably, (1) a stable well-shielded general coverage receiver capable of s.s.b. reception plus a 50 Mc. converter,

(Continued on Page 7)

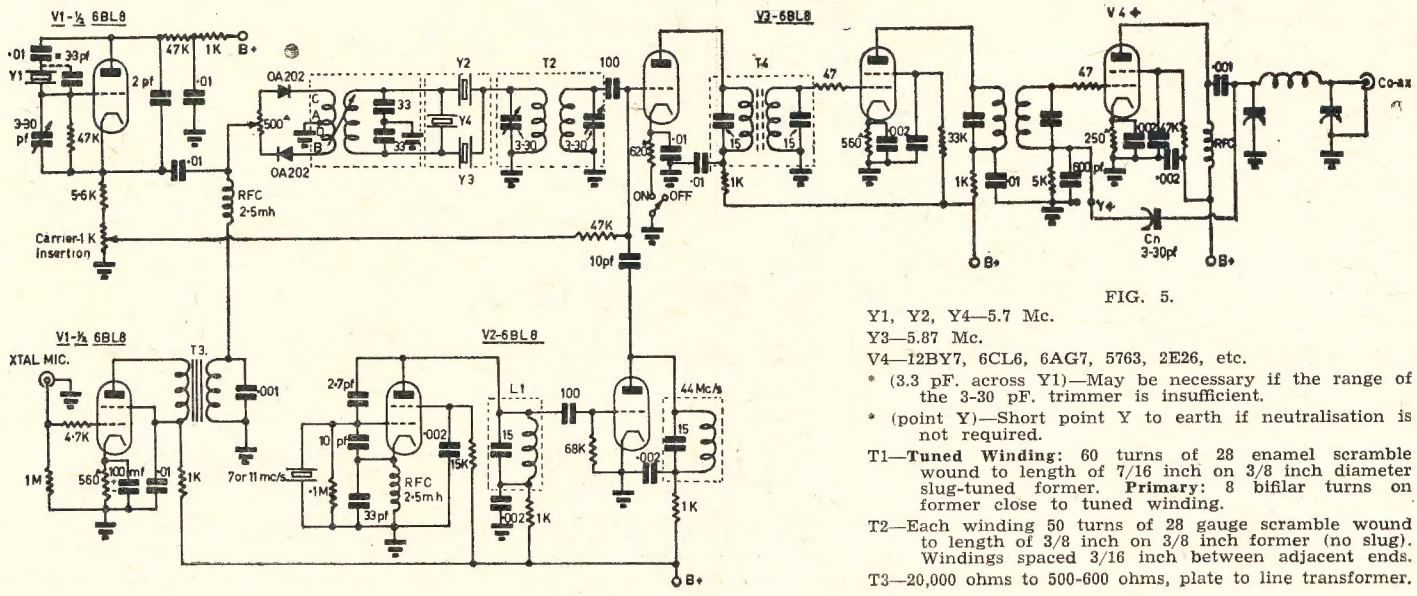


FIG. 5.

Y1, Y2, Y4—5.7 Mc.

Y3—5.87 Mc.

V4—12BY7, 6CL6, 6AG7, 5763, 2E26, etc.

* (3.3 pF. across Y1)—May be necessary if the range of the 3-30 pF. trimmer is insufficient.

* (point Y)—Short point Y to earth if neutralisation is not required.

T1—**Tuned Winding**: 60 turns of 28 enamel scramble wound to length of 7/16 inch on 3/8 inch diameter slug-tuned former. **Primary**: 8 bifilar turns on former close to tuned winding.

T2—Each winding 50 turns of 28 gauge scramble wound to length of 3/8 inch on 3/8 inch former (no slug). Windings spaced 3/16 inch between adjacent ends.

T3—20,000 ohms to 500-600 ohms, plate to line transformer.

TEST EQUIPMENT

5" OSCILLOSCOPE

Vertical Amplifier flat from D.C. to 4.5 Mc., useable to 10 Mc., push-pull throughout. Horizontal Amplifier flat from 1 c.p.s. to 400 Kc. Sweep Frequency 10 c.p.s. to 100 Kc. Complete with THREE Probes (demodulator, direct, low capacity). PRICE **£84/1/0.**

SWEEP AND MARKER GENERATOR

Five fundamental **sweep** ranges 3 to 216 Mc. Three fundamental and one harmonic **marker** ranges 2 to 225 Mc. External crystal socket, attenuators. Continuously variable marker size, 4 step decade coarse and fine for sweep and marker output. Complete with 5.5 Mc. crystal. PRICE **£63/6/0.**

SIGNAL GENERATOR

Frequency 75 Kc. to 150 Mc., 1% accuracy on all seven ranges. Output, over 100,000 microvolts, 400 c.p.s. internal modulation plus provision for external modulation. Voltage regulated, stabilised power supply. PRICE **£48/4/0.**

V.T.V.M.

Peak to peak. BIG 7½" Meter. Seven non-skip ranges on all four functions, e.g. + D.C. Volts, — D.C. Volts, A.C. Volts, Ohms. Zero centre facility. 1% ceramic resistors. Frequency response 30 c.p.s. to 250 Mc. Complete with two probes, R.F. and UNI probe (enables Ohms, A.C. and D.C. Volts to be measured with the one probe). PRICE **£40/3/0.**

FULL DETAILS OF ABOVE INSTRUMENTS AVAILABLE ON REQUEST

★ TUNING WANDS

An invaluable aid to resonating tuned circuits in Receivers and Transmitters, etc. Full details supplied with each Wand. Price 7/6 each.

CRYSTALS, FT241: 455 Kc., **£2.** 455.555 Kc. **30/-.** Channel 40 through to Channel 54 **30/-.** These Crystals are ±5 cycles of their frequency. **These Crystals can also be supplied in sets to your Filter requirements.**

CRYSTALS, HC6/U: 1000 Kc., 1500 Kc., 3500 Kc., 7000 Kc., 8030 Kc., 8333.3 Kc., 8343 Kc., 14000 Kc., 21000 Kc., 46.000 Mc., 72.100 Mc., **£4 each.** 100 Kc. Marker Crystals, **£4/16/0.**

INTERNATIONAL RADIO AMATEUR

WORLD PREFIX MAP

26/3
Post Paid

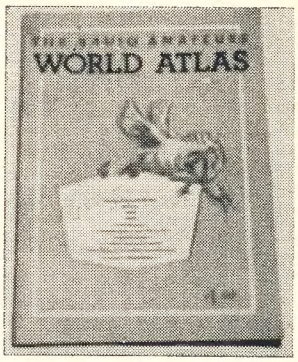
- **29" x 42" on Heavy Stock.**
- **Printed in Four Colours.**
- **Mercator Projection.**
- **Complete Details.**

This unabridged Map shows Capitals and Major Cities of every land. At a glance, there are Radio Amateur Prefixes by Country . . . alphabetically-listed Prefixes . . . Countries and Continents . . . DX Zone Index . . . World-wide Time Zones.

THE RADIO AMATEUR'S

WORLD ATLAS

26/3
Post Paid



- **All six Continents of the World.**
- **West Indies-Caribbean area.**
- **Polar Projection of the world.**
- **Complete Country Prefix Index.**
- **Sixteen pages of 8¾" x 12" on quality paper stock.**
- **Country Prefixes & Zone Boundaries on each map.**
- **4 beautiful colours.**

Only complete World Atlas compiled especially for Radio Amateurs. Continents are in the Lambert Azimuthal equal-area projection showing correct areas with minimum distortion. A compact and informative reference.

★ SPECIAL

One Only. Lafayette HE-30 Com. Receiver with pre-selector and speaker. Price £55.

All goods despatched by Certified Mail. Be sure to include your full address and cheque or money order with your order.

PHONE OR MAIL ORDERS ONLY
NO CALLERS PLEASE
PHONE: XJ 6181, XJ 2353

TRANSTRONIC PRODUCTS

123 BALGOWLAH ROAD, FAIRLIGHT, N.S.W.

The Neon Oscillator

T. W. BARNES. VK2ABI*

THE neon oscillator is one of a class known as relaxation oscillators; this oscillator employs a condenser whose rate of charge is determined by a resistor connected in series with it and the supply.

The condenser is periodically discharged by a neon glow tube which "relaxes," that is, abruptly reduces its resistance when the voltage across the condenser reaches a value capable of initiating a massive ionisation of the gas in the tube.

The cycle of charge and discharge is continuously repeated so long as power is supplied to the circuit. Provided that the discharge time remains a small part of the total time of the cycle, the frequency can be said to depend on the resistance and capacitance involved, the voltage of the supply, and on characteristics of the glow tube, or only on the first two when the others are fixed. The wave generated is saw-tooth in form.

Fig. 1 shows the typical circuit of such an oscillator; C is the condenser referred to and R the resistor determining the rate of charge of C. The resistor R1 may be present to limit the current through "N" (the neon tube) to a safe value. R1, if present, has a value which is small compared with that of R.

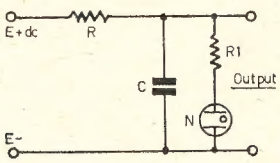


Fig.1.

The voltage at which a glow tube initiates discharge of the condenser is commonly about 120, and discharge commonly ceases at about 70 volts; the difference is approximately 50 volts.

When a d.c. potential, E_{DC}, is applied across CR in Fig. 1, a voltage E_R appears across R due to the flow of current into the condenser C and at the same time a voltage E_C appears across C due to the charge stored in it. The voltage E_{DC} equals E_R plus E_C; E_C opposes the flow of fresh charge into the condenser and a graph of E_R and E_C against time has the form shown in Fig. 2.

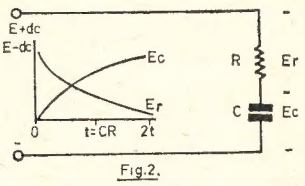


Fig.2.

Voltage E_R is determined by the expression

$E_R = E_{DC}\ e^{-t/CR}$ and E_C by

$E_C = E_{DC}\ (1 - e^{-t/CR})$ in which "t" is the time in seconds, "C" is the capacity in farads, "R" is the resistance in ohms and "e" is a number, 2.718.

* "Kanangra," Cabbagetree Lane, Fairy Meadow, N.S.W.

From these equations, when $t = CR$ seconds,

$E_R = 0.368\ E_{DC}$ and $E_C = 0.632\ E_{DC}$

Another way of expressing E_R and E_C is to say that:—

$t = 2.301\ CR \log (E_{DC} \div E_R)$

or $t = 2.301\ CR \log [E_{DC} \div (E_{DC} - E_C)]$

These equations are only satisfied if the condenser C is initially completely discharged.

If a switch was provided across C and this was immediately closed at instant CR seconds so as to short circuit the condenser, the output voltage E_C would go through one cycle shown in Fig. 3; if this cycle was immediately and continually repeated a saw-tooth output waveform, approximately triangular in shape, would result.

Its period would be $t = CR$; its frequency (f) would be $1 \div CR$.

Automatic switching may be provided by the inclusion of a glow-tube, but the frequency will be modified.

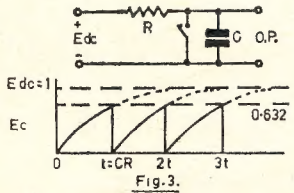


Fig.3.

Gas discharge tubes contain two electrodes, cathode and anode; the cathode may be cold or hot (thermionic) and the tube contain neon, mercury vapour, hydrogen, or some other gas.

These, together with the physical design of the electrodes, permit a variety of characteristics; for example, the voltage difference between ignition and extinction of discharge may be as low as 10 volts in some tubes.[4]

The gas within the tube is at low pressure. As a result the mean free path of particles is great enough to alow an acceleration significant enough to cause massive ionisation when the potential reaches a critical value.

When this occurs the tube behaves very much like a short circuit.

The critical voltage, called the "ignition voltage" (E_i) in a cold cathode glow tube is, say, 120 volts.

The sudden fall in the internal resistance of the tube has quite a rapid onset and the voltage across the tube will usually rapidly fall to some lower value, called the holding value.

It is interesting to note that although the current through the tube may rise to a relatively high value, the internal resistance undergoes such a reduction that for quite a range of current values the tube voltage drop remains approximately constant. There is a plateau in the curve relating current to voltage.

This is due to the emitting area of the cathode increasing approximately linearly with current in this phase. Continued increase in tube current will eventually cause an increase in tube voltage drop, the whole cathode area now being active, culminating in arcing which might destroy the tube.

This is the reason for the inclusion of the resistor R1 already mentioned. This resistor is commonly wired into the tube cap in the bayonet type base. A 0.22 megohm resistor can be seen within the red fluorescent plastic case of the warning light incorporated into some of the three-pin flat power outlets.

A fall in voltage below a critical value known as the extinction voltage (E_e), about 70 volts, allows a fairly rapid but not instantaneous exhaustion of ions within the tube and the tube internal resistance rises to a high value; effectively an open circuit.

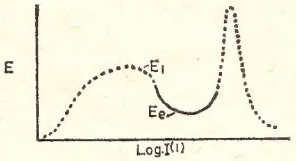


Fig.4.

The extinction voltage is of the same order as that of the plateau shown in solid line in Fig. 4.

When such a tube is connected in parallel with the condenser of CR, it will act as a switch, closing at the ignition voltage and opening at the extinction voltage, giving a wave shown in Fig. 5, as E_C varies with time.

It is apparent that in this new situation, for the same CR, the frequency is greater than before, since the time taken for the voltage to rise from E_e to E_i is, in practice, smaller.

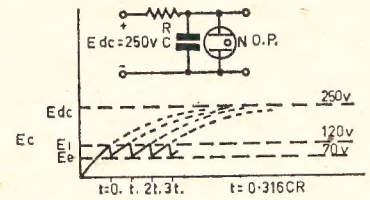


Fig.5.

At low frequencies the discharge from E_i to E_e can be considered instantaneous, but in fact it is not so and as the frequency rises (the product CR decreases), the discharge will occur over an increasing fraction of the total period of the cycle, particularly because the extinction is not instantaneous.

Ultimately then, as CR diminishes, discharge will become continuous. It is stated that the shortest time of deionisation may be as little as 10 microseconds but is commonly about 150 and in some cases may well be 300 microseconds.

Thus the upper limit of frequency of oscillation is generally less than 10,000 cycles per second,[4] and where a tube glows, but does not oscillate, the design frequency may be too high.

It seems that the upper frequency for the bayonet capped pilot light may well be as low as 1,000 cycles; but a fluorescent starter still oscillates strongly at 3,600 cycles.

The new relationship between time and CR **after the first ignition of the tube** is:—

$$t = 2.301\ CR\ \log\left(\frac{E_{DC} - E_e}{E_{DC} - E_i}\right)$$

for one excursion from E_e to E_i.

When E_{DC} is 250 volts, E_i 120, and E_e 70 volts, the expression above reduces to,

$t = 0.316$ CR for one excursion from E_e to E_i.

If the discharge time be ignored, as is reasonable at **low** frequencies,

$f = 3.16 \div CR = 1 \div 0.316$ CR.

At useful frequencies, the wave is more nearly triangular as $E_i - E_e$ becomes small compared with E_{DC}.

These oscillators may be synchronised or locked to a cyclic voltage E_i if a sufficient "pulse" of that voltage be injected into the oscillatory circuit.

Locking occurs when the free running frequency of the "neon" oscillator is somewhat less than that of E_i.

The effect is represented in Fig. 6 where the injected pulse causes the glow tube to ignite just before its "normal" instant. Locking on extinction would ordinarily be more chance-like.

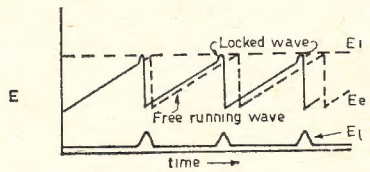


Fig.6.

Such a device was used in the time base of a simple oscilloscope whose circuit appeared in the A.R.R.L. Handbook of 1946.[2]

An adaptation of this circuit to local practice is shown in Fig. 7.

A particularly simple Morse practice oscillator may be made by using this oscillator. Provided it is operated without grid current and with a supply with good regulation, or in Class A, it should have no key chirp.

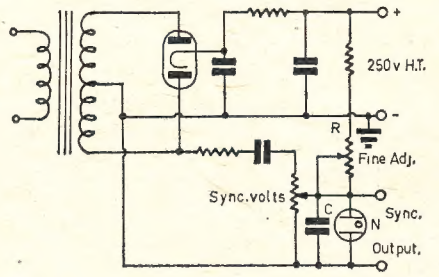


Fig.7.

Some experiment may be necessary to avoid key click and in addition some trouble may arise if the key appears "leaky"; the timing circuit can be a high impedance circuit and see the open key as "just another resistor". Fig. 8 shows how, with an available drive of about 50 volts, full rated audio output of an EL3NG can be realised; it also shows how easily a domestic receiver can be made over for Morse practice. When the key was inserted at point X or Y in Fig. 8, it appeared leaky and click was bad (open key voltage 250v.); it works very well where shown and without the need of "key shaping" which very readily creates an annoying back wave.

The device makes a very good "side tone" oscillator for monitoring keying in an electronic transmit/receive switch, see Fig. 9.[3] The oscillator is keyed by the blocking of the plate current of the 6C4.

In setting out to make a "neon" oscillator it is necessary to ensure that the applied voltage is considerably greater than the ignition voltage.

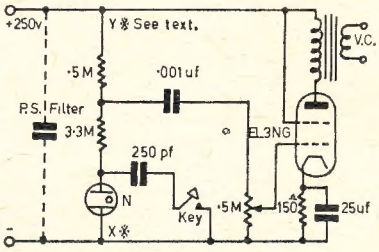


Fig.8.

Attempts often fail because the constructor forgets the limiting resistor of the "pilot light" type tube. This resistor (perhaps 220,000 ohms) should either be removed or made part of the timing circuit.

A very effective and cheap glow tube is the fluorescent starter selling at about 2/6. Included with this (in parallel) is a condenser whose capacity, 0.006 μF., is sufficient to permit it to be used directly by addition of the appropriate series resistor.

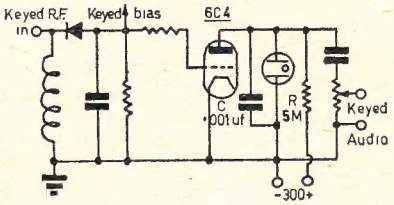


Fig.9.

The electrodes of the starter tube form a small bi-metallic switch which closes during ordinary operation. In the application we are considering there is no likelihood of this; the tube works indefinitely, giving a beautiful reedlike tone.

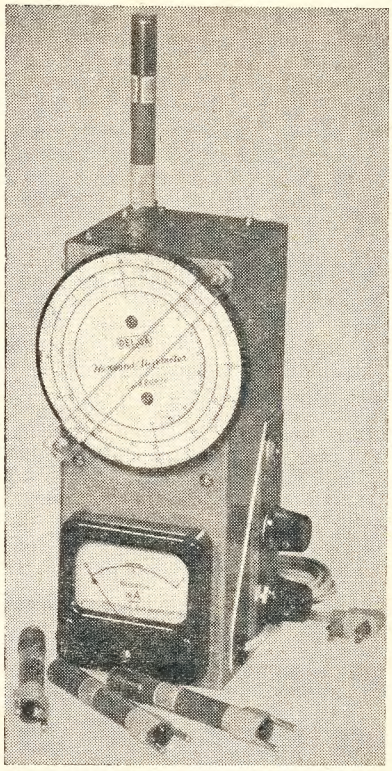
Summarising we may say that in a given case the product CR is the main determinant of frequency. For the case chosen, the frequency approximates to $3.16 \div CR$. If high audio output is desired, it is better to use a tube with a large difference between E_i and E_e.

Everything else being correct, if the tube glows but does not oscillate, the design frequency is probably too high and CR should be increased; if the tube does not glow, the applied voltage is probably too low.

When tubes intended for other purposes are to be used, they may include some element which will prevent or modify operation. ●

BIBLIOGRAPHY

1. "Industrial Electronics Engineering," Davis and Weed, Pitman, 1953.
2. A.R.R.L. Handbook, 23rd Edn., 1946, p. 409.
3. "Break In at its Best," Rosenbaum, W5CEP; "A.R.," Dec. 1959.
4. "Pulse Techniques, Moskowitz & Racker; Prentice Hall, 1951.



A Precision

GRID DIP METER

From "DELICA"—

Japan's Leading Electronic Instrument Manufacturer

A compact unit (7" x 2¾" x 2¾") ideally suited to Amateur or Commercial Servicemen's requirements, the "DELICA" offers these features:—

- ★ **Continuous coverage from 3 Mc/s. to 150 Mc/s. in 4 ranges.**
- ★ **Individually calibrated to 0.1% accuracy.**
- ★ **Has dial space for two additional bands.**
- ★ **1,000 cycle modulation by switch.**
- ★ **Jack provided for monitoring.**
- ★ **3" dial for easy reading.**
- ★ **3½" x ⅜" coils for access to "hard-to-get-at" areas.**
- ★ **Instruction manual (12 foolscap pages) provided, giving valuable data on grid-dipping.**
- ★ **Self contained transformer to operate from 240v. a.c. current.**

Postage only 5/- throughout Australia.

Price £23/10/- including Sales Tax

SMITH SONS & REES LTD.

30-32 Wentworth Avenue, or G.P.O. Box 5038, Sydney, N.S.W.

Phone 2-0956

D.S.B. AND S.S.B. AT V.H.F.

(Continued from Page 3)

(2) a signal generator with an auxiliary output of 400 c.p.s., (3) a sensitive wavemeter.

With no h.t. applied to V2 or V4, ascertain that V1 oscillates and is crystal locked. With balance control to one side, talk into the microphone and you should be able to copy yourself at the carrier frequency on the general coverage receiver set up for a.m. Now join up V2 and ascertain that the oscillator-multiplier chain is working satisfactorily.

With the 50 Mc. converter in operation connect a small capacitor to the grid of V4 and feed through a shielded lead to the input of the converter. Tune the receiver to the expected transmitter frequency with the balance control still to one side and the carrier insertion control at zero. Peak T1, T2, T4 and T5, reducing the receiver r.f. gain as required. L1 and L2 may be finally aligned for maximum output.

Still with no h.t. on V4, transfer the coupling capacitor to the transmitter output connector, re-peak T4 and the pi network for maximum output. If neutralisation is used, adjust Cn and a sharp null should occur. Re-peak T4 and pi network and check Cn again, repeat if necessary. The final should now be neutralised. The balance control can now be set and should null the carrier at approximately the centre of its range.

If you are able to cut the level down far enough you should now be able to listen to s.s.b. on your receiver and check the performance. A sensitive wavemeter should be used to check the final to ascertain that no spurious frequencies or 45 Mc. from the multiplier stage is present. If in doubt, feed a 50 Mc. signal from the signal generator through V3, V4, T4 and T5 and re-peak T4 and T5. C1 can now be adjusted for best voice quality on the air consistent with unwanted sideband suppression.

In conclusion, I must point out that you should not regard s.s.b. as a cure-all for t.v.i. All normal precautions should be taken and as a s.s.b. signal will saturate a close t.v. set more so than an equivalent a.m. signal, keep on good terms with your neighbours. However, one bright point is that you will probably have no beating patterns on t.v. sets such as often occurs with a.m. signals. Come in, the water's fine!

Standardisation of Frequencies for F.M. Mobile Operation

Since the availability of mobile f.m. equipment, ex commercial services, there are upwards of 40 mobile and base units in operation in Victoria.

It is expected that this equipment will become available in other States in the near future, some having been released in South Australia recently.

Suggestions have been made that common frequencies throughout all States be established on the 50 and 144 Mc. bands to provide Amateurs with this equipment the mobile facilities which have become both appreciated and commonplace in Victoria and the U.S.A.

The frequencies may or may not be ideal, but since there are so many units in use, the cost of a change for all existing crystals would be prohibitive. (Forty odd units, with two per unit at approx. £6 per set.)

144 Mc. BAND

The frequency in present use in Victoria on the 144 Mc. band is 145.854 Mc., and further channels about to be used with approximate channel separation of 146 Kc. are as follows:—

Channel 1:
145.854 Mc.—Mobile to mobile, and mobile to base contacts.

Channel 2:
146.000 Mc.—Secondary channel for the same use as above.

Channel 3:
146.146 Mc.—Base to base contacts and link frequency.

50 Mc. BAND

The 50 Mc. f.m. equipment is only just established and suggested operating frequencies are as follows:—

Channel 1:
52.525 Mc.—Primary calling frequency (same as for 144 Mc. use).

Channel 2:
52.645 Mc. (same as for Channel 1 uses).

Channel 3:
52.765 Mc.—For base to base contacts and link frequency.

Since it is desirable that accurate crystals be obtained for this service, and in view of early difficulties with various crystals available, the Victorian Disposals Committee would, if required, arrange the supply of these crystals for W.I.A. members.

It is emphasised **that the standardisation of the above frequencies throughout Australia** would provide Amateurs with mobile f.m. equipment with a service **comparable with that now in operation** in the United States of America, where there are f.m. nets wtih large numbers of Amateurs operating, complete with inter-city links on the v.h.f. channels.

☆

ERRATA IN V.H.F. CONTEST RESULTS

The Federal Contest Committee regret that two errors appeared in the Ross Hull Memorial V.h.f. Contest 1962-63 Results that appeared in the last issue.

In Award Winners, Section B Transmitting Phone, VK3NJ should read VK3ZNJ, K. W. Jewell.

In the Individual Scores, Section B, again VK3NJ should read VK3ZNJ, of Beaumaris. Also VK3FN should read VK3FW, of Canterbury.

TECHNICAL ARTICLES

Readers are requested to submit articles for publication in "A.R.," in particular constructional articles, photographs of stations and gear, together with articles suitable for beginners, are required.

W.I.A. D.X.C.C.

Listed below are the highest twelve members in each section. New members and those whose totals have been amended will also be shown.

PHONE

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK6RU	2	281	VK3WL	14	211
VK5AB	45	275	VK3ATN	26	204
VK6MK	43	278	VK4HR	12	192
VK3AHO	51	269	VK4RW	23	184
VK4FJ	21	247	VK3GB	50	183
VK6KW	4	211	VK2JZ	61	180

C.W.

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK3KB	10	310	VK6RU	18	240
VK3CX	26	294	VK3RP	56	229
VK2QL	5	279	VK3FH	15	226
VK4FJ	29	277	VK3BZ	6	222
VK3NC	19	266	VK5RX	23	220
VK2AGH	71	241	VK4HR	8	218
		Amendments:			
VK3AXK	30	165	VK3JF	70	164

OPEN

Call	Cer. No.	C'nt-ries	Call	Cer. No.	C'nt-ries
VK2ACX	6	300	VK3NC	77	269
VK6RU	8	290	VK3HG	3	269
VK4FJ	32	285	VK3JA	43	252
VK6MK	74	280	VK4HR	7	233
VK2AGH	83	274	VK3BZ	4	231
VK3AHO	76	272	VK3WL	45	225
		New Member:			
	VK5GG	90	101		

CHOOSE THE BEST—IT COSTS NO MORE

O. T. LEMPRIERE & CO. LIMITED
Head Office: 27-41 Bowden Street, Alexandria, N.S.W.
and at Melbourne • Brisbane • Adelaide • Perth

REMEMBRANCE DAY CONTEST, 1963

A handsome perpetual trophy is awarded annually for competition between States, inscribed with the names of those who made the supreme sacrifice, and so perpetuating their memory throughout Amateur Radio in Australia.

The name of the winning Division each year is also inscribed on the trophy. In addition, the winning Division will receive a suitably inscribed framed photograph of the trophy.

Objects

Amateurs in each Call Area (this includes those in Australian Mandated Territories and Australian Antarctica) will endeavour to contact Amateurs in all other Call Areas (VK1 and VK2 are to be considered to be in the one Call Area; likewise VK5 and VK8).

Date of Contest

Saturday, 17th August, and Sunday, 18th August, 1963.

Duration

From 1800 hours E.A.S.T., 17th August, to 1759 hours E.A.S.T., 18th August, 1963. A period of 15 minutes' silence will be observed by all stations on 17th August, immediately prior to the beginning of the Contest, when an appropriate broadcast will be made and relayed from Divisional Stations.

RULES

1. There shall be four sections to the Contest:—
   (a) Transmitting Phone.
   (b) Transmitting C.w.
   (c) Transmitting Open.
   (e) Receiving Open.

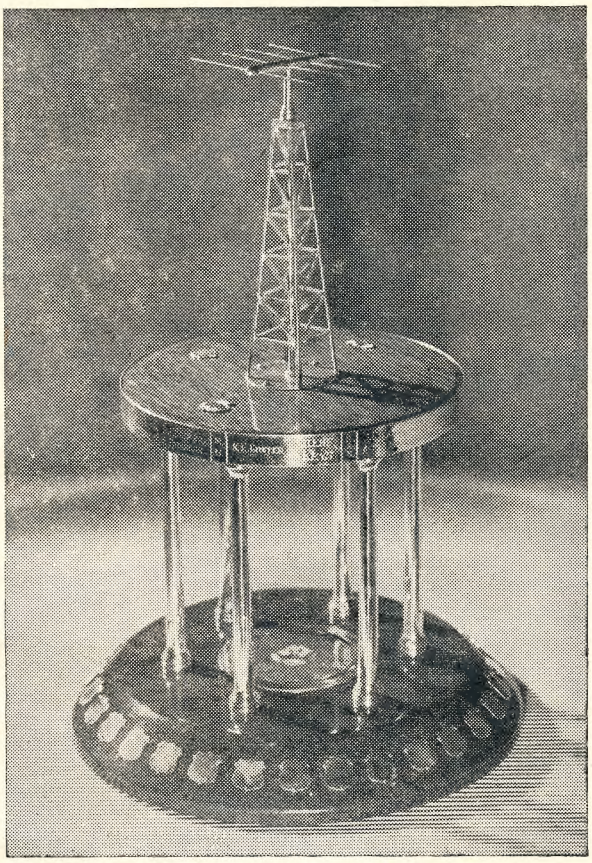
2. All Australian Amateurs may enter the Contest whether their Stations are fixed, portable or mobile, but only members of the W.I.A. are eligible for the awards.

3. All Amateur frequency bands may be used, but no cross-band operations are permitted.

4. Amateurs may operate on both phone and c.w. during the Contest (e.g. phone to phone, c.w. to c.w., or phone to c.w. and vice versa), but may submit an entry for one only of the above Sections listed in Rule 1.

An Open log will be one in which points are claimed for both phone and c.w. transmissions.

● The Federal Contest Committee of the Wireless Institute of Australia wishes all Australian Amateurs and Short Wave Listeners to participate in the Annual Contest which is held to perpetuate the memory of those Australian Amateurs who gave their lives for their country during World War II. It is held on the week-end nearest to 15th August, the date on which hostilities ceased in the South West Pacific Area.



Remembrance Day Contest Trophy

A contestant transmitting on phone, but receiving on c.w. must enter for the phone section (and vice versa). Refer to Rule 11 concerning entry in logs.

5. Only one contact per station per band is allowed and arranged schedules for contacts on other bands is not permitted.

6. Only one licensed Amateur is permitted to operate any one station under the owner's call sign. Should two or more operate any particular station, each will be considered a contestant and must submit a separate log under his own call sign.

Contestants operating Club Stations other than their own shall be referred to, for the purpose of these Rules, as "substitute operators". Their operating procedure shall be as follows:

Phone contacts: Substitute operators will call "CQ Remembrance Day" followed by the call sign of the station they are operating and the word "log" followed by their own call sign.

C.w. contacts: Substitute operators will call "CQ RD de" followed by the group call sign comprising the call sign of the station they are operating, an oblique stroke, and their own call sign.

Contestants receiving signals from a substitute operator will qualify for points by recording the call sign of the substitute operator only.

7. Entrants must operate within the terms of their licences.

8. **Cyphers.**—Before points may be claimed for a contact, serial numbers must be exchanged and acknowledged. The serial number of five or six figures will be made up of the RS (telephony) or RST (c.w.) reports plus three figures starting from 001 for the first contact and which will increase in value by one for each successive contact. If any contestant reaches 999, he will start again with 001.

9. Entries must be set out as shown in the example, using **only one side** of the paper, and wherever possible standard W.I.A. Log Sheets should be used. Entries must be postmarked not later than 16th September, 1963, and addressed to the **Federal Contest Committee, W.I.A., Box 638J, Brisbane, Qld.**

Your log could help your Division to win the Remembrance Day Contest Trophy.

SCORING TABLE

From \ To	VK0	VK1-2	VK3	VK4	VK5-8	VK6	VK7	VK9
VK0 ..	–	6	6	6	6	6	6	6
VK1-2	6	–	1	2	3	5	4	6
VK3 ..	6	1	–	3	2	5	4	6
VK4 ..	6	1	2	–	3	6	5	4
VK5-8	6	2	1	3	–	5	4	6
VK6 ..	6	1	2	4	3	–	5	6
VK7 ..	6	2	1	4	3	5	–	6
VK9 ..	6	1	2	3	4	5	6	–

Note.—Read table from left to right for points for the various call areas.

EXAMPLE OF TRANSMITTING LOG

Date/ Time E.A.S.T.	Band	Emission	Call Sign	RST Nr. Sent	RST Nr. Rcvd.	V.h.f. Bonus	Points Claim.	——

Note.—Standard W.I.A. Log Sheets may be used to follow above form.

EXAMPLE OF RECEIVING LOG (VICTORIAN S.W.L.)

Date/ Time E.A.S.T.	Band	Emission	Call Sign Heard	RST Nr. Sent	RST Nr. Rcvd.	Station Called	V.h.f. Bonus	Points Claim.	——
Aug. '63 17 1803	7 Mc.	A3	VK5XU	59001	——	VK3XU	—	2	——
17 2349	,,	,,	VK6RU	56005	——	VK4YZ	—	5	——
18 1200	50 ,,	,,	VK2OP	43026	——	VK9PA	25	1	——

Note.—Standard W.I.A. Log Sheets may be used to follow the above form.

10. Scoring will be based on the table shown.

In addition a bonus of 25 points may be claimed for the first contact in each call area on 50 Mc. or above.

11. All logs shall be set out as in the example shown and in addition will carry a front sheet showing the following information:

Name..... .....Section . .. .

Address..... .....Call Sign . . ...

Claimed Score..... .....

Declaration: I hereby certify that I have operated in accordance with the rules and spirit of the Contest.

Signed..... .....

Date.....

All contacts made during the Contest must be shown in the log submitted (see Rule 4).

Entrants in the Open Section must show phone and c.w. contacts in numerical sequence.

12. The right to disqualify any entrant who, during the Contest, has not observed the regulations or who has consistently departed from the accepted code of operating ethics.

13. The ruling of the Federal Contest Committee of the W.I.A. will be final. No disputes will be entered into.

14. Certificates will be awarded to the winners of the phone, c.w., open and receiving sections in each call area (Northern Territory will count as a separate call area). There will be no outright winner for Australia. Further Certificates may be awarded at the discretion of the Federal Contest Committee.

The State to which the Perpetual Trophy will be awarded shall be determined in the following way.

To the average of the top six logs shall be added a bonus arrived at by adding to this average the ratio of logs entered to the State Licensees multiplied by the total points from all entries.

Example:

$$\text{Average of the top six logs} + \left(\frac{\text{Logs Entered}}{\text{State Licencees}} \times \frac{\text{Total of Points}}{\text{from all Entrants}}\right)$$

Acceptable logs shall show at least five valid contacts.

The Trophy shall be forwarded to the winning State in its container and will be held by that State for a period of twelve months.

Note.—The F.C.C. emphasises the need for strict observance of Rule 9 in the Transmitting Section and Rule 3 in the Receiving Section.

RECEIVING SECTION

1. The Receiving Section is open to all Short Wave Listeners in Australia, but no transmitting station may enter.

2. Contest times and loggings of stations on each band are as for transmitting.

3. All logs shall be set out as shown in the example. Logs must show first the call sign of the station calling (not the station being called), the serial number sent by it and then the call sign of the station being worked. The scoring table to be used is the same as that used for transmitting and points must be claimed on the basis of the State in which the receiving station is located. A sample is given to clarify the position.

It is not sufficient to log a station calling CQ, nor is it permissible to log a station in the same call area as the receiving station.

For purposes of the Contest, VK1 and VK2 are considered to be the same call area, likewise VK5 and VK8.

4. A station heard may be logged once on phone and once on c.w. for each band.

5. Club receiving stations may enter for the Receiving Section of the Contest, but will not be eligible for the single operator award. However, if sufficient entries are received a special award may be given to the top receiving club station. All operators must sign the Declaration.

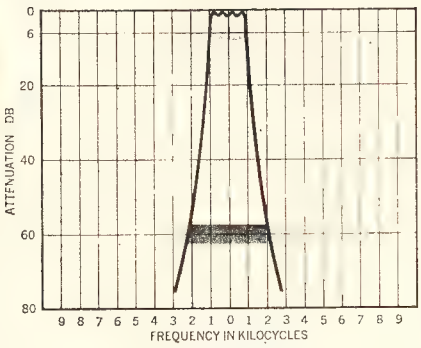
6. Awards. — Certificates will be awarded to the highest scorer in each call area. Further Certificates may be awarded at the discretion of the Federal Contest Committee.

COLLINS

COLLINS RADIO COMPANY (A'SIA) PTY. LIMITED

presents the new low cost

COLLINS F455 FA-21 455 Kc. MECHANICAL FILTER



This new Filter will find wide use in Commercial and Amateur Single Sideband Transmitters and Receivers.

Based on innovations in design and manufacturing, the new Filter has the same stable steep-skirted selectivity as all Collins Mechanical Filters, with a nominal 6 db. bandwidth of 2.1 kc. and a 60 db. maximum bandwidth of 5.3 kc., providing a shape factor of just over 2.5 to 1.

In addition to high selectivity, the new Filter displays a flat-topped passband and other performance features characteristic of the basic design, simplicity, reliability and compactness of the Mechanical Filter. The Filter is electrically and mechanically stable, and will not age, break down, or drift as a result of extreme temperature or long, continuous service. Frequency shift, for example, holds 10 ppm/°C. over a —25°C. to +85°C. range. Passband response variation or ripple is 3 db. max. and transmission loss is only 9.5 db.

Price £15-19-3 plus £1-12-0 Sales Tax

Available from our authorised dealers:

SHEPARDS' TELEVISION CO.
12a Gays Arcade, Adelaide. Phone: 8-1384

UNITED RADIO DISTRIBUTORS
175 Phillip Street, Sydney. Phone: 28-3718

and all other States from:

COLLINS RADIO CO. (A'SIA) PTY. LTD.
34 Queens Road, Melbourne, Vic. Phone 26-3643

PROFILE OF VK3ZEB

"I used to complain that I had no shoes until I met a man who had no feet."

RAY Bedson, a 25-year-old Ham, earns a happy living at a Preston (Vic.) electrical repair shop fixing radios and repairing television sets, tape recorders and record players.

He laughs and jokes with his workmates . . . but he never sees them. He has been blind since a fall at school when he was 12.

Ray's "constant companion" when he is doing electrical repairs is a £50 test meter with a braille-scale.

When he wants diagrams of electrical circuits he draws them on aluminium foil. Soon he is "finger-familiar" with their every detail.

"I can do most jobs in radio repairs," Ray said, deftly pinching a wire bare of insulation. "Sometimes when a lot of leads are closely grouped, others might sort them out for me.

"But you get to know most of the sets. Anyway, we have all the makers' books here and if I'm not familiar with something, I take the book home and my parents read me the passage . . . or someone here wil read the section."

Ray said he began taking radio as more than a hobby about 1957. Three years ago he got the job in Mr. Maurie Grimwood's repair shop, in Plenty Road, Preston.

He found other firms wary of employing him because of the risk of electrocution. "But if you take normal care and safety precautions, there's not much chance of an accident," he smiled.

"A lot of the boys here have helped me," Ray added. "My knowledge of television has improved 100 per cent.

"I keep up-to-date with tape recordings and braille technical magazines from America."

As Amateur Radio operator VK3ZEB, Ray can be heard on two and six metres most nights.

It took almost three hours of oral examination before Ray was granted the Limited licence, but now he talks to people from Rockhampton to New Zealand and South Australia. (He will always welcome a call.—Ed.)

"You've got to prove yourself in this game," Ray said. "It will be a while before I start much television repair work. I've already had a few shocks from the set at home."

Boss Maurie Grimwood admires Ray's grasp of electrical theory. "Try him with anything—you'll never toss him. It's easy to see he's an expert. You only have to talk to him."

(Ray can be seen operating a test meter with a braille-scale on the front cover of this issue.—Ed.)

FORTHCOMING CONTESTS

THE NINTH EUROPEAN (W.A.E.) DX CONTEST, 1963

The Deutscher Amateur Radio Club (D.A.R.C.), the sponsor of the W.A.E. Certificate, invites Amateurs throughout the world to participate in the 9th W.A.E. DX Contest, 1963. This well known and commonly popular Contest was, till now, held in January of each year. Due to the reduced sunspot activity, the DX conditions have been so poor during the last winter, that the 9th European (W.A.E.) DX Contest was again tentatively put off to August. It is hoped that this date offers more frequent and better possibilities of contacts, especially on the high frequency bands.

The object of this Contest—as in the preceding years—is to establish as many contacts as possible between Radio Amateurs residing in Europe and Amateurs located throughout the remainder of the world.

Contest Periods: C.w.—0000 G.M.T., Saturday, 10th August, to 2400 G.M.T., Sunday, 11th August. Phone—0000 G.M.T., Saturday, 17th August, to 2400 G.M.T., Sunday, 18th August.

The following Amateur bands are to be utilised: 3.5, 7, 14, 21, and 28 Mc. Cross band operation is not permitted.

Send logs to Dr. H. G. Todt, DL7EN, Chlodwigstr. 5, 1 Berlin 42, Germany, not later than 30th September, 1963.

4th ALL ASIAN DX CONTEST, 1963

The J.A.R.L. will hold the 4th All Asian DX Contest this year, and it is hoped that Amateurs will again enter this Contest.

The purpose of this Contest is to increase the activity of Radio Amateurs in Asia and to establish as many contacts as possible during the Contest periods between Asian stations and non-Asian.

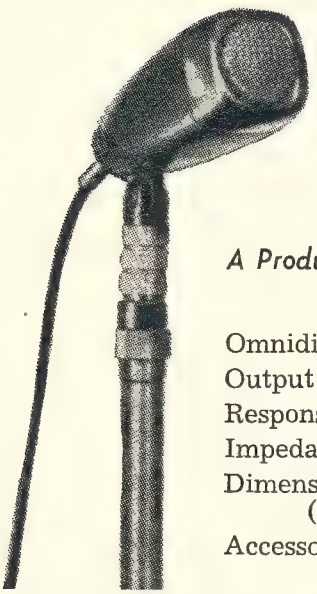
Contest Periods: 1000 G.M.T., 24th August, 1963, to 1600 G.M.T., 25th August, 1963.

The following Amateur bands may be used: 3.5, 7, 14, 21 and 28 Mc. C.w. only.

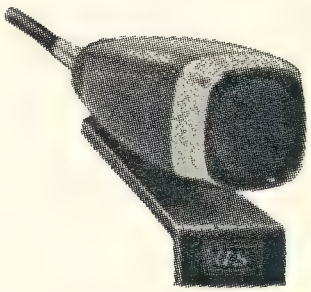
All logs must be postmarked not later than 30th September, 1963. Send to J.A.R.L., Att. Contest Committee, P.O. Box 377, Tokyo Central, Japan.

US

UNIVERSAL SOUND



DYNAMIC MICROPHONE
Model 603



A Product of Italy

Omnidirectional.
Output: —50 db.
Response: 50-12,000 c.p.s.
Impedance: 50,000 ohm, 250 ohm or 60 ohm.
Dimensions overall: 40 x 40 x 98 mm.
(1-9/16" x 1-9/16" x 3-13/16").
Accessories: Table base.

Model 603 is a Dynamic Microphone ideal for music, speech and particularly magnetic recording. Can be used on stand or on a small table base.

Smart square shaped aluminium pressure cast case with stainless steel wire mesh.

Sturdily built and beautifully finished.

Impedance can be easily stepped down from high (50,000 ohm) to low (60 or 250 ohm) impedance.

Retail Price: £14/0/0
Plus Sales Tax £1/9/2

Marketed by **ZEPHYR PRODUCTS PTY. LTD.**

58 HIGH STREET, GLEN IRIS, S.E.6, VICTORIA **Phones: 25-1300, 25-4556**

SIDEBAND TOPICS—BUD POUNSETT,* VK2AQJ

TUBE INSURANCE

Have you some hard earned cash invested in one or more expensive tubes? You have—read on. You probably would have trouble finding someone to insure it against damage or failure. Why look when you yourself are available?

This protection can only be applied to linears using fixed bias, such as the 6146, 4X150, etc. You can see how it works after a quick examination of the schematic of Fig. 1. The normally open relay only closes the contacts S1 when sufficient bias is applied to the grid. For this reason it is very necessary to connect the r.f. choke right at the grid pin. The relay needs to be reasonably sensitive, the squelch relay from an SCR522 transceiver is the one I use.

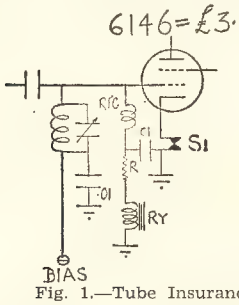


Fig. 1.—Tube Insurance.

This relay has a resistance of 5,000 ohms and requires only a milliamp. or so to operate. The value of the resistor R depends on the operating current of the relay and the minimum bias that is safe for the tube. The operating current can easily be determined by experiment. The resistor value in kilohms is found by dividing the minimum voltage by the operating current in milliamps.

Have you ever seen a 6146 tube after it has lost its bias and still has 750 volts on the plate and 250 volts on the screen? A most depressing sight indeed. Let us hope you never see it; underwrite your own insurance today.

* 7 Thorpe Ave., Queanbeyan, 4S, N.S.W.

MORE PROTECTION

Back in "A.R." Sept. 1959, you will find a very similar circuit to Fig. 2. Old timer sidebanders may have overlooked it and newcomers may not have seen it, so here it is again with an important modification.

S1 is a spring-loaded switch, S2 and S3 are normally open contacts on relay RY, while S4 is a set of normally closed contacts on RY.

After the heaters on V1 and V2 have had sufficient time to heat up (my supply uses 866As), the switch S1 is pressed. High tension immediately appears at the point marked. The filter capacitor C, which is usually rather high, charges, but at a slow rate determined by the 1,000 ohm resistor in series to ground. At the same time the 100 μF. capacitor is charging until it reaches the operating voltage of the relay RY which operates, closing S2 locking up the transformer primary, closing S3 and shorting the 1,000 ohm resistor and opening S4, removing the 100 μF. capacitor from across the relay coil. The 1 meg resistor then discharges the capacitor. It all happens faster than you can read this and amounts to about half a second.

In the event of an overload on the h.t. line and the voltage falling below a certain figure, the relay RY will drop out, removing the mains from the transformer primary.

The modification to the original is the addition of S4 and the 1 megohm resistor. This modification ensures that the relay drops out faster under overload conditions.

The value of R and RY will depend on the h.t. voltage and the operating current of the relay. When you make your calculations, remember to also take the power dissipated in the resistor B into consideration, and choose a resistor to handle it. If your relay has an extra set of normally-open contacts, use them to switch on a red pilot light to remind you that your h.t. supply is a killer at heart—BE CAREFUL.

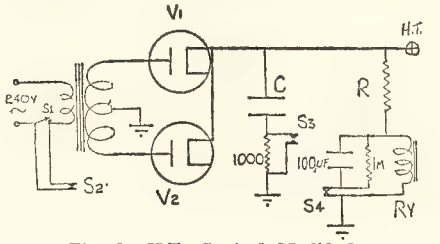


Fig. 2.—H.T. Control Modified.

ERRATUM

In the Index to "A.R." Technical Articles—1956-60, page 15, Dec. 1960, "Crystals Substitute Mechanical Filter" is entered in the Transmitting Section, but more correctly should appear under Receivers, as it refers to its use for c.w.

Tested and Tried!
the symbol of quality
L M ERICSSON PTY. LTD.
TRIMAX DIVISION

S.S.B. CRYSTALS
Set of Five Gold-Plated Matched Crystals
Mounted in HC6U Holders
Suitable for 455 Kc. I.F's.
Price £16-10-0 per Set
+ 12½% Sales Tax
Full details on request.
BRIGHT STAR RADIO
46 Eastgate St., Oakleigh, S.E.12, Vic. Phone 57-6387

DURALUMIN, ALUMINIUM ALLOY TUBING
IDEAL FOR BEAM AERIALS AND T.V.
★ LIGHT ★ STRONG ★ NON-CORROSIVE
STOCKS NOW AVAILABLE FOR IMMEDIATE DELIVERY
ALL DIAMETERS—¼" TO 3"
Price List on Request
STOCKISTS OF SHEETS—ALL SIZES AND GAUGES
GUNNERSEN ALLEN METALS PTY. LTD.
SALMON STREET, PORT MELBOURNE, VIC.
Phone: 64-3351 (10 lines)
Telegrams: "Metals," Melb.
ADELAIDE GAM MELBOURNE
HANSON ROAD, WINGFIELD, S.A.
Phone: 45-6021 (4 lines)
Telegrams: "Metals," Adel.

National Field Day—1963 Version

R. A. CATMUR, VK5FY*

ONCE more the joys of a Field Day came upon us in South Australia, and the Elizabeth Amateur Radio Club again girded up its loins, cracked the whip over the slaves, unlocked the Treasury (also the Treasurer) and betook itself unto Black Top Hill, some 15 miles North of Adelaide.

The various characters who turned up in various states of dress and undress were:

VKs 5PE (our worthy President), 5NO (Slim), 5NQ, 5DY, 5FY, 5WV (Hon. Treasurer, complete with money bags), 5AW, 5QL, 5DK, 5EU (21 Mc. Harry), 5TM, 5AX (Pump-handle Les), 5DE, 5UE, 5DS [the Scot(ch)man from

John VK5QL (160 and 15 metre station). John's junior op. Stephen is checking to see Dad doesn't splatter!

Adelaide], 5RG, 5CV, 5ZBR, 5ZMK, 5ZHJ, 5ZMT, and 5ZAH (The Admiral). Others included Tony Strong, Roger Miles, Peter Field, Tony Saville and George Downing. Ron George, of Antiference Ltd., was with us again this year complete with van and crank-up tower.

Amongst the visitors were VKs 5EF, 5DQ, 5ZK, 5GZ, 5MX, 5LD (Pop), 5OJ, 5ZBC, 5ZJG, 5BQ, and 5WN. Probably some others, too, who just didn't get identified. Our apologies to you!

By the time yours truly arrived at 9 a.m. Tubby and his willing band of slaves had the cables in situ, and we were able to settle in promptly, with very little bother or fuss—yet! Due to circumstances over which our finest scroungers had very little control, the large donk of previous years was not available (it was undergoing a face lift). As a result, a number of smaller generators had to be pressed into service.

The set-up was similar to last year in most respects, the 40 metre station using a dipole with its centre up some 36 feet on a three-section mast. Apart from its power supply, it was self-contained in a van together with the 1 metre station using a 13 element yagi.

The next station, some 500 feet away, was used on 80 and 20 metres (80 at night, 20 during the day) and had twin dipoles whose centres were supported by a 50-foot crank-up tower attached to the van containing the station. Above the dipoles was a 3 element 6 metre beam for the v.h.f. rig at this site.

The third station consisted of two vans, one containing the 160 metre and 15 metre rig and the other the 2 metre station and a general purpose standby rig for all frequencies. The gear on 2 metres had a 13 element yagi atop a 50-foot telescopic pole made by 5ZMK. In addition, the h.f. antennae shared by both vans were dipoles for 20 and 15 metres, a long wire, and a rotatable vee beam. The method of rotation was somewhat unique, and consisted of two slaves galloping over a thistle infested paddock on the word of command!

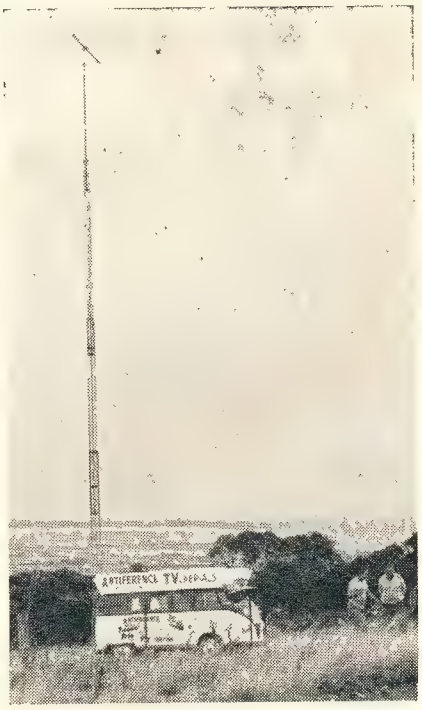
The 40 metre rig was operated by the author, ably assisted by Roger Miles. Brian VK5ZBR operated the 1 metre rig in the same van—can you imagine the racket in the van with 40 metre phone going its hardest and the 1 metre rig quietly pushing out a couple of watts of rush-box hiss!

The 80/20 metre station was under the control of Cyril VK5DY and Jeff VK5NQ, assisted by Tony Strong and Ron George. Colin VK5ZHJ operated the 6 metre equipment.

The remaining stations were John VK5QL doing the honours on 160 and 15 metres, Keith VK5ZMK on 2 metres, whilst the old DX hound, Tubby VK-5NO, was the keeper of the general purpose standby rig.

In general, the stations got away to a fine start, the 40 metre rig was operating by midday, and the others at various times later. By mid afternoon all the rigs and antennae were operational and a good thing too, because George VK5CV duly arrived with his car boot full of cold, canned amber liquid, into which we all tucked with great gusto. This wonderful gesture by George now seems to be a habit since he did the same honours last year. We all thank you George, you time it so well too! As a matter of fact, it has been rumoured that the Managing Director of 5NO Enterprises was seen quaffing one before **she** left the site!

During these most enjoyable proceedings our worthy President, Mr. Clive M. Pearson (Council Member, W.I.A., South Aust. Division; operator of 5WI and other sundry occupations) drew himself up to a great height and commanded silence with a phone signal to outdo all phone signals. When utter hush had made itself manifest, Clive proceeded to inform us that the commencement of the Field Day was nigh, that we should all be more gentlemanly than usual, not run more than 500 watts etc., etc., and be especially careful not to smoke within 12 feet of stubble or we would be liable to a fine of £50. At this, Tubby in particular was visibly shaken, his editorial eyes glazed over, and he trembled like a 5PS in a high wind—'cos his pipe emitting a plasma like flame, was about four inches from some stubble—quite an area too if you count the double chins! However, when the Tub realised it was the ground stubble Clive was referring to, he rapidly became his old self again.



The 80 and 20 metre h.f. station, plus 6 metre rig.

To finish off what is now known as the Pearson Pep Talk, Clive presented Jeff VK5NQ with a magnificent gold cup donated by W3AOH to the winner of the "CQ" World Wide DX Contest in 1961. The cup had been suitably engraved and the genuine Fort Knox stuff could still be seen, that's how thick it was. At this juncture a certain Mum was heard to say "What a lovely vase it will make." "Such degradation when it was obviously made to hold 'Red Ned'," replied Dad. All nonsense apart, it was a very generous donation by Tony Susan, W3AOH, and Jeff is proud of it, not to mention the South Australian Amateur fraternity in particular—congratulations, Jeff.

After the clapping and general back-slapping had ceased, we returned to

* 142 Woodford Road, Elizabeth North, S.A.

our respective stations to commence the National Field Day Contest. That was where some of the trouble started, one end of the 40 metre dipole had come adrift, and had broken the inner conductor of the co-ax at the top of the pole. Down it came and after some rapid repairs the whole caboodle was hoisted up again at about five minutes before the Contest was due to start.

At the duly appointed time of 1800 (in "A.R.," which we assumed was 1800 E.S.T.), we were all cluttering up the ether—the 40 metre rig, however, was emitting lots of pickles anywhere but up the spout. Smoke signals, carrier pigeons and a small boy were hastily sent to the standby station which promptly came on the air to relieve the situation. Following some snooping around, we discovered the input voltage to the van was 200, and the transmitter control circuits were failing to respond. After giving the donk a couple of slaps across the brushes, and tickling it up a bit, the volts came good, the rig came good—so off we went again.

A couple of hours and 35,000 flying ants later, we in the same van smelled a smell, a familiar smell of boiling enamel, and how many of us haven't at some time or other? Brian, Roger and yours truly, looking like the proverbial bloodhounds, followed our sniffers right up to the modulator which by this time was old enough to smoke! "Woe is me, fiddle-dee-dee, and the damnation of Faust," I thought—I don't use the nearly flamin' thing all year and this is what happens! At this moment an angel in disguise materialised in the form of one Rob Gurr, VK-5RG, who helped the situation immensely by taking over the c.w. reins and let us investigate whilst he knocked a few more points up.

Nothing really wrong however, the generator had become over enthusiastic and was happily sending us more than our required voltage—275 in fact, and an electrolytic had gone west, using the choke as a load. A pair of cutters soon fixed that, and after a check to see if everything was in Field Day order, the modulator was ready for business again. So were we, and soon we were following the old routine, c.w. -phone, then back to c.w. again as conditions dictated. Rob did a fine job and I believe he thoroughly enjoyed himself—thanks OM.

Being at the 40 metre station most of the time, unfortunately kept me from snooping around the other shacks in search of little interesting tit-bits. Still, Jeff and Cyril helped once by sitting on the tx switch and allowing us to overhear unwittingly a short conversation about the band conditions in general. Why didn't you keep it on longer chaps, it might have got really interesting!!

Bill VK5WV was the general factotum and assisted by Tony Strong as demanded, kept the donks filled and also toted round cool drinks, being helped in this by Alan, my junior operator. On the first day, however, a cameraman from one of the local t.v. stations gave old Bill's car a gentle nudge. Now Bill's car didn't take too kindly to this, and to coin a phrase, promptly dropped its bumper. Bill was really worried about this because, as he said, "If I fix that up with a bit of wire as well, the car will look like a telephone exchange!" However, all's well that ends well, and soon Bill and his car were clattering up and down the road dispensing cool drinks to the operators and donks alike.

Sunday morning saw the boys all arriving bright and early, and after checking everything, were ready for the word go at 0930, despite the odd showers of rain that appeared. The day's activities saw everything running sweetly, and even Dave VK5DS was persuaded to apply his c.w. fist into service at the 160/15 metre station.

In general, from what was heard on 40, there were a lot more mobile and portable stations participating this year. Our good friends at VK5WC were heard on many occasions and were knocking up a tidy score. The v.h.f. bands, however, were disappointing after last year.

I must refer to your cryptic comment, Ed., in the S.A. Notes for Feb. We have doubts that the 5PS type signal can reach Elizabeth, 'cos we didn't hear him in the Field Day! We have been hoping Warwick would pay us a visit one Field Day because there would be a wealth of material for him (even money he arrives next year at 5CV time!). How about it Warwick, or are you scared of the black fellas out this way?

This article would not be complete without acknowledgments of our sincere appreciation to all the many Amateurs, and non-Amateurs, who helped in one way or another, to Ron George and Antiference Ltd., for their loan of a van and tower; to Ernsmith Ltd., of Adelaide, for the loan of a similar van and tower; to the Elizabeth North E.F.S., for the loan of knapsack sprays; and, of course, to the property owner and manager, who allowed us once again to use their land.

In conclusion a number of Amateurs were asking why the Contest does not run for 24 hours, since many of the organised groups have to leave their equipment for some eleven hours, free-wheeling as it were, until the next morning.

It was also noted that here and there is an impression that contacts made on the first day can be worked again on the second. (Same band, same mode.) Our interpretation of Rule 4 is that having worked a given station on one band in both modes, that station cannot be worked again during the Contest on that band. Perhaps a slight modification to Rule 4 might clarify this point.

P.S.—I'm glad the Field Day comes but once a year! ●

★

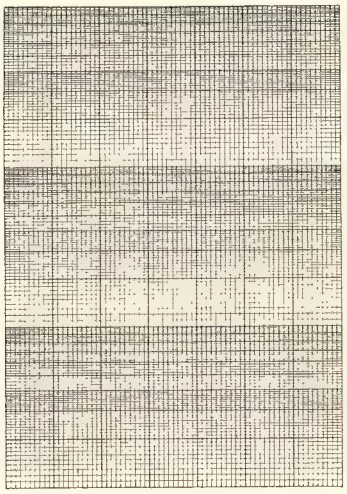
OFFICIAL VK0 CALLS, 1963/4

VK0AP—A. Paterson, Mawson, Ant.
VK0BE—B. Eyre, Davis, Ant.
VK0DC—D. Creighton, Mawson, Ant.
VK0DM—D. Myles, Macquarie Island.
VK0GS—G. A. Smith, Mawson, Ant.
VK0MC—J. McKenzie, Wilkes, Ant.
VK0NL—N. T. Lied, Heard Island.
VK0VK—S. Grimsley, Wilkes, Ant.

QSL cards for the above may be sent via the W.I.A.

Thanks to VK3IJ, Doug Twigg, of A.N.A.R.E., for above information.

—BERS195, WIA-L3042.



3 Cycle Log Linear

FOR GRAPH PAPERS

Consult:—

NORMAN BROS. PTY. LTD.

Melbourne's Leading Stationers

60 ELIZABETH ST., MELBOURNE

Phone 63-6221

A large variety of Rulings always in stock

13" x 8½"

1/10's, ⅛'s, etc. .... **2d.** sheet
1-5 cycle log linear or log log .... **5d.** sheet

11¾" x 8½"

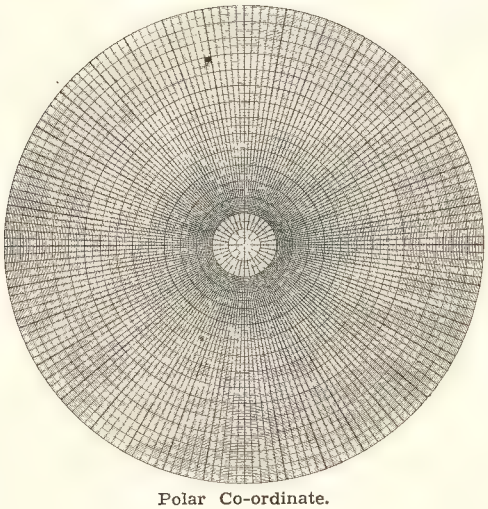
4 cycle log linear or log log .... **2d.** sheet

Polar Co-ordinate

8" diameter .... **2d.** sheet
12" diameter .... **1/-** sheet

42/6 pad of 50 sheets

Quantity prices and other rulings on application.
Packing and Post: 12 sheets 5d., 24 sheets 8d.



Polar Co-ordinate.

D X

VP4, OA4, BV, ZM7, 7G1, FP, AC5, MP4, ZC6, TY2

Sub Editor: ALAN SHAWSMITH, VK4SS (Phone 4-6526, 7 a.m.-4 p.m.)
35 Whynot Street, West End, Brisbane, Qld.
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

Conditions usually fall away somewhat from now until Spring, and VK DX activity is consequently down. The bands, however, have been fairly active, but with very few really rare prefixes coming through. At this QTH, 20 mx falls right away as the night progresses, but generally has signals on it during the day; anything l.p. is weak and not like old times.

40 mx has signals on it all night, but mostly only UA, J and very little worth chasing. It is not until August that the s.p. to Europe really opens on this band.

80 mx has been a disappointment this late Autumn. DX seems few and far between and after midnight only the Commercials are heard.

NOTES AND NEWS

R.S.G.B. Editor, G2BVN, sends news of the following DX-peditions:

PX1OX will be the call of DL2OX and a small group who will be operating from a QTH, having an altitude of 7,500 ft. in the Pyrenees. The period of operation will be from 25th June to 6th July, and the licence has been obtained. The equipment will consist of a K.W. Viceroy operating on bands from 3.5 to 21 Mc. It is hoped that the location will overcome some of the disadvantages suffered by previous trips to Andorra, when signals to some parts of the world were screened by the mountain ranges.

G2HFD will be operating from Alderney during the period 11th to 30th August, mainly on 14 Mc., but possibly also on 1.8 and 3.5 Mc. Operating hours will be usually around midday and during the evening, as this is a combined holiday DX-pedition with the former taking first place. Howard asks that QSLs should be sent to his home QTH at 20 Lock Chase, Blackheath, London, S.E.3.

A group comprising G3OUF, G3PCL, G3PCR, G3PSH, G3ROP and two SWLs intend to visit Sark, Alderney and Jersey during the period 8th to 21st August, and the call sign to be used will be GB2GC. There will be a.m. operation on 1.8 and 14.4 Mc., with c.w. to be used on the remaining bands. QSLs should go to G3OUF at 80 Argyle Rd., Ealing, London, W.13. The complete operating schedule will be given in a later issue.

Christmas Island: Don Reid, VK9DR, sends in information regarding the formation of the Christmas Island Amateur Radio Club. I quote him: "Our club tx under the call sign VK9DR for the present will be installed shortly. Shortage of gear has been the problem. Aerials are up and lead-ins waiting forlornly. Our club librarian has built a t.r.f. rx/phase shift osc. combination for club use and we will be monitoring the 20 and 40 mx bands prior to installation of tx. When we get going we will be looking for DX on Saturdays on 20 and 40, between the hours of 0400 and 0700 G.M.T., under the call VK9DR. Our club will have the loan of Hammarlund s.s.b. tx and rx for two months commencing August. Get the boys ready for DX contacts. QSL officer, Ron Ashley, will see that QSL is 100 per cent. through the Bureaux."

A few who are on 14 Mc. s.s.b. as of now are: PX7AAC, GD6UW, 4S7IN around 1100z, 9Q5RCS at 1930z, VK9AT at 1100z, KC6BK at 1000 and 1200z, and VP5BP at 2000z.

Following a request by the A.R.R.L., the F.C.C. has extended the facilities allowed to U.S. stations for operation on the Top Band. Expanded frequency space is available in every State and operation is now permitted in the Gulf States, Alaska and possessions. Some areas will have power restrictions and sideband transmissions are prohibited.

ST2AR still has intentions of appearing on s.s.b. and in the meantime has commenced operation on c.w. on 3.5 Mc., using a G5RV multi-band aerial and a power of 100w. His first QSO was with OK1GT and the second with G5DQ.

Another trip in the making is one by VE-7ZM, who hopes to activate ZK2 later this year.

CR8AA, located in Dili, Portuguese Timor, requests all QSLs to go to the home QTH of W9JJF.

The A.R.R.L. announce the addition to the Countries List of Juan de Nova. This listing will encompass the islands of Juan de Nova, Bassas da India and Europa. These three islands are French territory under the administration of the overseas department of Reunion. D.X.C.C. credit claims for contacts with Juan de Nova may be made starting 1st June, 1963. Such confirmation must be for contacts made 25th June, 1960, or later.

It is reported that the new prefix allocated by the I.T.U. for Algeria is **7X2.**

Despite the large number of conflicting rumours, the latest news on the eligibility of contacts from Chagos under the call VQ9A/8C is that QSLs are being accepted for D.X.C.C. credit. Nothing has come from A.R.R.L. which alters this situation.

Rota is a Trust Territory and not a U.S. possession, and therefore the normal U.S. sub-bands do not apply. This possibly accounts for the crop of rumours regarding W9WNV/KG6, but HL9KH confirms that the activity was perfectly in order.

The Ontario DX Association currently sponsors three awards for DXers. (1) The Canadian (Trans-Canada) Award; (2) The St. Lawrence Seaway Award; (3) The Provincial Capitals of Canada Award. The first two awards have been greatly improved in quality although the requirements for earning them remain the same. Present holders of the old certificates may, if they wish, re-apply for the new certificates which will be issued free of charge. It is only necessary to state the number, name and call sign appearing on the old certificate. The third award was formerly sponsored by VE3HB (now a silent key), but all three may now be claimed from Wm. A. Wragg, VE3BPQ, Awards Manager, Ontario DX Assn., 127 Castlewood Rd., Toronto 12, Ontario, Canada.

Look out for Canton Is. which can be heard daily from 0300-0600 G.M.T. on 14175 Kc. s.s.b. One call sign is KB6EPE.

Corsica: There are at present eight licensed Amateurs registered on this island, some being F9VD, F9EC and F9IB.

Indonesia: All PK and JZ0 calls are deleted from A.R.R.L. for D.X.C.C., as from when Indonesia took over Netherland New Guinea, and as from that date all future PK stations will count as Indonesians. The JZ0 has also been incorporated into the Republic of Indonesia.

The DX-pedition operated by Bill Hempel, VK3AHO, known as the DX-pedition of the month, now moves to Nauru Island as VK9BH, after being in operation from Ocean Island, and giving a new country to many DXers. From Nauru, Bill will proceed to other romantic and rare Pacific points, operating on all the popular bands in s.s.b. and c.w. On 20 mx, watch for him on 14125 Kc., listening around 14345 Kc. On c.w., he's on 14025 Kc., listening 15 Kc. up or down. His 40 mx frequencies are 7025 for c.w., and 7080 for a.m.

ADDRESSES

CE8CG—J. R. Nock, Casilla 783, Punta Arenas, Chile.
DL2AI—Sgt. E. Bright, 25 Field Sqdn., Royal Engineers, AlanBrooke Barracks, Paderborn, B.F.P.O. 16.
EL2PN—Via W4MZW.
EL3A—Via W3NNC.
EL4A and EL4YL—Via W2GHK.
FG7XP—D. Julien-Esnard, 13 rue Lamartine, Pointe-a-Pitre, Guadeloupe.
FG7XT—Via K5AWK.
FR7ZI—J. J. Terrasson, B.P. 253, St. Denis, Reunion.
FU8AG—Via VK2QJ (home call).
HC8CA—Via W2MES, 65-33 78 St., Middle Village 79, N.Y., U.S.A.
HI8AKU—P.O. Box 1213, Santo Domingo, Dominican Republic.
Ex-HI8DGC—D. Crowe, 1454 Windemere Cres., Sarnia, Ontario, Canada.
HK4PX—P.O. Box 1503, Medellin, Colombia.
W6ZDF/KM6—J. H. Ross, Navy 3080, Box 23, F.P.O., San Francisco, California.
OX3JV—Via SM7ACB, G. Stenvall, Kopenhamnsv, 47A, Malmo V, Sweden.
TC3ZA—Via W2JXH.
TU2AJ—O. Kone, R-T Ivorienne, B.P. 22-61, Abidjan, Ivory Coast.
VR3E—C/o. A.P.O. 86, Task Grp. 815, C/o. Postmaster, San Francisco, Calif.
VR6TC—Via W4TAJ.
VS1LJ—M. McIntosh, C.C.S., R.A.F., Changi, Singapore 17.
YJ1JB—Via VK2QJ (home call).
ZD3A—Box 285, Bathurst, Gambia.
ZD6HK—Via W2ELW.
6O2HH—Via W2CTN.
6W8CU—P. Goriot, Nosoco, B.P. 791, Dakar, Senegal Rep.
7X2VX—Via W4UWC.
9A1IR—Via K7BVZ.
9G1EO—Via VE4OX.
9G1GN—Via VE4IM.
9N1DD—Lt. Col. W. Gresham, U.S. Embassy, Kathmandu, Nepal.
9N1ME—Expedition Hdq., 514 Latimer Rd., Santa Monica, Calif., U.S.A.
5B4JW—J. T. Worrall, C.A.F.O. Branch, Hdq. N.E.A.F., B.F.P.O. 53.
9Q5CA—Via VE3BCL (home call).
HM1BI—Choi Lim Kang, 35-58 Sam Chang Dong, Chongno, Seoul, Korea.
5X5IU—Box 355, Kampala, Uganda.

ACTIVITIES

Eric BERS195 is first to hand this month with the following heard, 7 Mc. c.w.: BY1PK, GI-3PSQ, HM1BI (1845z), JA8OI/MM, UH8DB, UO5AM, UN1BN, VQ4ET (1940), VS1LX (1930z), ZE8JJ (1945z), 4X4NPW, 5R8CE/FH8 (1930z), VK4OJ/MM, WA6NVP/MM. 14 Mc. c.w.: BV-1USB, BY1PK (2030z), HC8CA, HL9KP, KP-4AYI, KR6DD, VE8WN, VR1A (0730z). Rarest QSLs received were from FW8DW, KG6NAA, W9WNV/KG6R, UC2KAG, UL7NB, UP2CP, UQ2DQ, VK9LA, VK0DA, VS1LJ, ZL3OX (1.8 Mc.).

George L4011 breaks into the ranks with these heard on 14 Mc. a.m.: W9SDY, K6HQI, W7NGT, WA6SCC, W5EFC, W2VIR, VE7DC, VE6MF, K7CMP, TG9US, VE4JT, W7THX, ZL1AAM, W6QS, W6BMG, W5FNO, W7TCN, W5DXY, VE5GI, VE6TK, W7TQN, XE1AS, YS1IM, YS1BV.

Peter Drew, WIA-L6021 heard on 15 mx a.m.: CR7CR, CR7GJ, DJ2YL, G3KFT, JA1-3-4-6-7, OH5SM, OZ3XP, W6BHM, W6JRY, K6ERV, K6TQA, ZE2JA, ZS1FA, ZS2OM, ZS5TA, ZS-5UM, ZS6AXI, ZS6OS, 9M2GJ; s.s.b.: VS6EQ, ZL3WB. 20 mx a.m.: G2PU, I1SM, KR6NC, VK0DM, ZS1DM; s.s.b.: W6-7, ZL1-2-3, 5R8CE; c.w.: OE5JE, VQ4DS. 40 mx a.m.: DU1MR, DU1RS, W3PHL, ZL2AKP, ZL3VI; s.s.b.: G3AOO, GW3EHN, JA2BAY, KC4USN, VR1N, W1-2-4-5-6-8-9-0, W4VCA/KH6, ZL2AAG, ZL-2GX; c.w.: DL1NB, FB8ZZ, JA1, KH6EBQ, KH6EDW, KH6EHI, WH6EUX, UA4KWB, UA-6KPB, UR2GU, VE7AHT/7, W2-3-4-5-6-7-8-9, YO8AU, ZL2-4, 4X4NPW. 80 mx a.m.: ZLs 1AFB, 1AQU, 1AXB; s.s.b.: VR1N, ZLs 1AIX, 1ATQ, 2AAG, 2BBE, 2QJ, 2QZ, 4MD; c.w.: ZL2MR, ZL3IP.

SUMMARY

The following VKs have been adopted as full members of the YL International S.s.b'ers. They are: VKs 2ADC, 2APK, 2PV, 3AHO, 3CX, 3RJ, 4FJ, 4SD, 4SS, 4TY, 5RX, 5ND, 5NQ, 5NO, 6RU, 7SM. The girls are determined to make themselves heard on the DX scene and are issuing a very f.b. certificate for 10 W/K and 5 DX members worked.

Meet the opposite sex on 14.333 Kc. at 1800z on Tues., Wed. and Thurs. All are welcome, and their motto is world-wide friendship. For any info, write to V. Mayree Tallman, K4ICA, 428 S.W. 28th Road, Miami 36, Florida.

Once again many thanks to all those who have provided the "meat" for this column. As always, so many are supported by so few, and without your efforts, this column would not be possible.

This probably is my last page as DX Sub-Editor. Business is demanding and you know about the Amateur's Code. If my efforts have helped "A.R." in any way, then I'm more than repaid, because the work has brought me many friends in VK and overseas and taught me much about Amateur Radio. 73, Al, VK4SS.

WANTED URGENTLY

A Sub-Editor to compile the DX page of "A.R." Fuller details obtainable from Editor "A.R." or Alan Shawsmith, VK4SS.

VHF

50 - 144 - 288 - 576 - 1296 Mc.

Sub Editor: LEN POYNTER, VK3ZGP.
14 Esther Court, Fawkner, N.15, Victoria
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

The month of July is here and the first effect of the recent frequency changes to alter our v.h.f. allocations take place. That is, we lose the 288 Mc. band. However, in Jan. 1964 we "take delivery" of our new band, 420-450 Mc., and in all probability 50-52 Mc. will be lost during the coming year.

By all accounts 70 Cm. will be a popular band, if we can believe all stories floating around there will be plenty of equipment ready to go on 1st Jan. Who will have the first QSOs?

Here in VK3 an investigation is being made into the possibilities of a band-planning scheme for 2 mx and 70 Cm. Briefly it could be similar to the U.K. 2 mx band plan which is a geographical and frequency scheme. Separation of counties who use a particular segment of the band. There are nine zones utilising their band 144-146 Mc. Zone 1 144.0-144.1, Zone 1 144.1-144.25, etc. This is reflected up on to 70 Cm with Zone 1 using 432-432.1, Zone 2 432.1-432.25, etc. The advantages of this system are many. For it is possible to look for a particular area, by pointing your beam in that direction and tuning the particular segment. Of course there are disadvantages to any point of view, but they have been minimised and the whole scheme appears to work very satisfactorily. Whether we need to go that far is being investigated. The writer being a member of the committee appointed would appreciate views and opinions on the possibility of a band plan in VK3. Particularly from country Amateurs. A time limit has been fixed. It must be decided one way or another before Dec. 31, 1963. Your opinions please. (The whole scheme would be a "Gentleman's Agreement.")

V.H.F. DX Club of N.S.W. You will read further on details of an award by this Club for V.h.f. Amateurs interested in DX. I first read of this in "Break-In" (the N.Z.A.R.T. Bulletin). I hope that the venture will be a success and trust others will emulate this effort and encourage v.h.f. DX.

Speaking of v.h.f. DX, use these pages to publicise your efforts. We would be very pleased to give publicity to any special efforts, schedules, etc., to push v.h.f. signals further. Why not drop me a line with all the relevant details? We could start a new section on v.h.f. DX.

What could be the mid winter 6 mx openings took place over the week-end of June 1-2, with good signals between VK3-VK2, VK4 between 1100-1400 on both days, or is the main one to come? Time will tell.

I would appreciate it if you could let me have your news by the 1st of the month as it greatly facilitates putting all the pieces together. Would those Divisions running beacons on the various bands please supply me with up-to-date details of frequency, power, times of operation, etc. An accurate map reference would be invaluable for beam directions. 73, 3ZGP.

NEW SOUTH WALES

It looks as though Paul 2ZPJ, having got thoroughly fed up with lack of activity on two, has decided to do something about it. Hence, much activity over the last few weeks with four stacks of nine yagis, 100w. tx, and pertinent power supplies, and was last heard of travelling north by west towards Mt. Ebor, inland from Coff's Harbor, and about 250 air miles from Sydney. Graheme 2ZXY was believed to be his accomplice on the trip which was scheduled for May 31, June 1 and 2.

David 2ZVW now runs 2½ watts of sideband to a 5763 on two metres, and it's a darned good start. Roger 2ZRH was almost "around the bend" with envy after getting back from a trip to VK5 recently. Roger says thanks for the great reception he received from all you fellas. Reminds me, he is also on two, sideband of course.

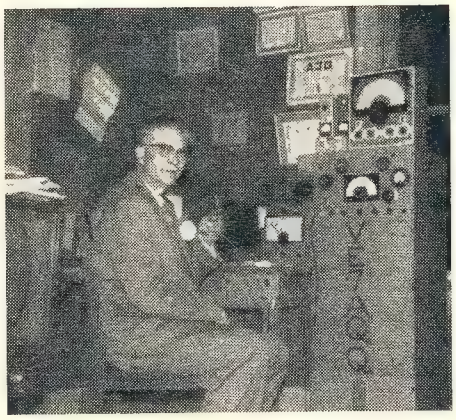
The message handling contest on 19th May went off quite nicely, with around 40 operators going hammer and tongs. No results yet, but they should be out in a couple of weeks.

Ralph 2ZRG has made a welcome re-appearance on the bands after a couple of months' absence, and runs a very sweet sounding f.m. rig on two now with around 100w. input.

29th May saw the running of the monthly fox hunt with Lance 2ZKP as the artful fox. Only about six cars started, probably due to the cold snap, but non-attenders missed a very good hunt. Dave 2AWZ found the fox about an hour after the start, followed by David 2ZVW some twenty minutes later. Supper consisted of tea, hot dogs and cold feet, and among the cheerful faces present were Joe 2ZOO, Tim 2ZTM, John 2ZAV, Bob 2OA, Dick 2ZCF, Phil 2ZPI.

By the time this is in print, the long distance fox hunt, which is the day event for June 16, will be over, but don't forget the all-band v.h.f. scramble on the nights of July 13 and 14, starting at 7.30 p.m., no cross band allowed, with a point per contact. Just the thing for these cold winter nights with your feet up on those nice warm 866s, glass in one hand and mike in the other.

Right after the v.h.f. broadcast on 25th May we decided a short scramble might unearth a little life, since we had had only three contacts in as many hours prior to it, and it must have had the right effect as up shot



Isaac Isaacson, VE7AQQ and his equipment. On 8th April, 1959, VK2ADE contacted VE7AQQ on 50 Mc. This was approx. 7,320 miles.

3ZSJ. Unfortunately it was not DX as he was operating portable from the QTH of Steve 2ZSK, but very fine to have a visitor from VK3 land, even if he did complain about our glorious Sydney weather—which, incidentally, was lousy.

That takes care of our monologue for another month, but a whisper in the ear of all you VK2 lads first. I would very much appreciate any information you can dish out for the notes, by mail or via 2 and 6 mx, particularly from country areas, and also from you Mac 2ZMO, if you get a chance. 73, 2ZBL.

P.S.—The YF of John 2ZCD has presented him with a bouncing first harmonic, YL; congratulations Fay and John.

VICTORIA

First of all I must apologise for the lack of notes from VK3. This was due to the change in the committee of the V.h.f. Group and the election of new office-bearers. We hope from now on to present the notes every month.

Six metre activity in VK3 has been on the increase lately with the help of new stations and DX. On 1st and 2nd June, there was an opening to VK4 and VK4s ZAA, ZNS, ZAZ, ZJS, ZCH, ZEK, ZWB, BZ, and NG were worked. Visitors to VK3 were George 5ZGY and Mark 5ZEK. George was mobile with 10w. to a 5763 with a transistorised modulatior, and Mark had a transistorised walkie talkie on 6 mx. Jock 3CS has been worked on 6 mx again using s.s.b. and Alan 3ZNG will be on s.s.b. soon. Other newer stations on 6 are Roy 3ZOM and David 3ZOP, who will soon be running 60w. to an 815, with a 4-tube converter to a SX16.

The mobile net has got under way on 53.032 Mc. and early stations on frequency were Len 3ZGP, Bert 3ZGD, Ian 3ALZ and others are now on or on the way.

Two mx activity has been at a high level with country activity increasing. Active country stations are 3VL, 3ZER, 3ZDP, 3AGV, 3DY and new stations in Melb. are 3APK, 3ZGS.

Ron 3ZRK is now running 60w. to a QQE-06/40 and George 3ZJQ has 100w. of s.s.b. to a 12 over 12 up 50 feet. Lindsay 3AWY has his 522 back on 2 mx and will be in business soon. Alan 3ZCJ recently moved to Swan Hill and has been worked by Gordon 3AGV. Bill 3ZBZ hopes to raise his e.r.p. with a 5 over 5 array.

The first v.h.f. get-together was held on 5th May with 50 Amateurs present as well as YLs, XYLs, harmonics, etc. There were several events held and Bob 3ZIU won the most events. I would like to thank Jack 3ZJK and Ted 3ZKP for their help.

There has been an upsurge of micro wave activity in VK3 and the most active are 3ZNK, 3ZGM, 3ZMQ, 3ZKC, 3ZAF, 3ABY. The best effort so far has been a 15 mile QSO on 3300 Mc. at 5 by 9 plus both ways. It looks like we are going after some records in VK3. 73, 3ZNJ.

QUEENSLAND

The monthly meeting was held on Friday, 17th May. Victor 4ZBT elected yours truly for the job of writing these notes and also to give a lecture on V.h.f. Antennae at the next meeting.

On the 50 Mc. band activity is average, with some people going "power crazy". Malcolm 4ZEL had his high powered 4/125 working well, until the driver went wild and generated t.v.i., but he is gradually bringing it under control. David 4ZEK is working constantly on his 4X150 tx to feed into his new six element beam. Ron 4ZK is finding his QQE06/40 needs neutralisation. 4ZBH has been playing with his s.s.b. rig of late and puts out a fine signal in this direction. On 26th, 4PU, from Woombye, was working mobile in Brisbane. 4ZGN is back on the band after a noticeable absence.

144 Mc.: 4ZLG, 4ZAS, 4ZCH, 4ZAV and others are building for this band. Victor 4ZBT is busily engaged in "Oscar" work. He has a chart recorder in operation and is building a linear amplifier and a panoramic rx. He also has a beam tilter which is raised by compressed air, and the beam can rotate at the rate of 180 degrees in one second.

288 Mc.: I have had a couple of cross-band contacts (6 to 1 mx) with 4ZEL and did attempt to make contact with Mick 4ZAA, but did not meet with any success. Ralph 4ZCH and Henry 4HC also attempted to contact Mick from Ipswich, but did not break the barrier either. The equipment used was super regens., and mod.-osc. on all attempts.

General news centres around Graham 4ZGN. It appears he was required by his employer to do some wiring in the mental home at Goodna, and along with some of the other electricians, he managed to get locked in. I believe it took a considerable time to convince some medical students they were not inmates.

On this humorous note I conclude. 73, 4ZDF.

SOUTH AUSTRALIA

50 Mc.: No DX was reported for the month of May on this band. Brian 5ZBI at Clare has been working into Adelaide occasionally, this is only a haul of some 80 miles, but the terrain is quite rugged. Folk interested in passing the c.w. are informed that Dave 5DS is running slow Morse practice on 50.4 Mc. every evening from 1800 to 1830 C.S.T. 5ZLV, of Willalooka was mobile recently in Adelaide on 6 mx.

144 Mc.: This band has been quite active. Country stations at Mt. Gambier, Victor Harbor and Port Pirie ensure quite a high level of activity. One newcomer is John 5ZJB, his freq. is about 144.6 and he is using a helix. John has used this antenna for tracking satellites on 108 Mc. and is trying it out on 144 Mc. Barry 5BQ has a mobile converter for 144 Mc. on the way.

(Continued on Page 16)

288-296 Mc. BAND

Amateurs are reminded that the 288-296 Mc. band was withdrawn from use on 30th June, 1963.

VHF NOTES

(Continued from Page 15)

432 Mc.: Interest in this band is sufficient to warrant it a little sub-heading all of its own. John 5ZDZ has gear going, as we write he is finalising adjustments. Alf 5LA has a tripler working and giving about 8w. output. Your conductor's 417A trough line converter is working (just, N/F about 10 db.) and he finds 5LA's 2 mx harmonic (see previous sentence) 5 x 9 plus. Some improvement is anticipated when adjustments are optimised.

Several other chaps have modulated oscillators going. Although some fellows have mixed feelings about the use of modulated oscillators, they do incite very high levels of activity and the band is 30 Mc. wide, after all is said and done.

General News: Several VK2 chaps were in VK5 during May, including 2ZCF, 2ZPI and 2ZGC. Dick ZCF had mobile gear on 6 and 2 mx, and worked several local chaps.

On 28th the V.h.f. Group met with Doug 5KK in the chair, and about 18 boys attended. Amongst resolutions made at the meeting were: (a) That the beacon committee should proceed with a beacon on 144 Mc., and should tentatively consider a beacon for 432 Mc.; (b) that meetings of the Group be held on the second Monday of every alternate month (next one, July 8); (c) that a fox hunt be held on 29th June, using 6, 2 and 1 mx.

The Group was pleased to receive applications for membership from several Mt. Gambier fellows, including 5ZLS and 5ZGR. John 5ZJG has passed the c.w. Bill 5ZAX has obtained a call sign for his portable location at Maitland. Bill's new call is 5ZAV.

A six mx scramble was held on 26th May, winner was Garry 5ZK/P with 5ZBR runner-up. Congrats. to Dane 4ZAX and Mick 5ZDR on the Ross Hull results. Dane's score was magnificent, however it will be interesting to see how he fares next year (see 50 Mc. notes last month). 73, 5ZCR.

WESTERN AUSTRALIA

May Meeting: 26 members and visitors attended. Reports were given on our new beacon location and signal reports were studied. It appears that good general coverage is being achieved. Lionel 9LA is experiencing difficulty with the 50 Mc. beacon caused by humidity. He has appealed for a blower motor and one will be sent up. Although nothing was heard last season, we hope the beacon will be an indication of conditions for DX next summer.

To stimulate activity, the Group will run an v.h.f. field day on 13th July, 100 hrs. to 1600 hrs. W.A.S.T. Points will be awarded by mileage, 1 point per mile per contact. There will be two sections, home station and portable. It has been decided that only one call sign may be used by each portable group. We hope to have a near record turn out in the field and plans are well under way.

50 Mc.: It appears we now have a band of listeners. I do not believe everyone is rebuilding or studying for examinations. We all know that it is not the most pleasant weather we have been enjoying, but should all activity stop! At the moment it is often possible to be in the shack two or three nights without having a contact. It may help things if we co-ordinated our calling time, say five minutes on the hour and half hour, by this method it could ensure that people calling CQ do not do so in vain. (Perhaps a 6 mx net freq. would help.—Sub-Ed.)

144 Mc.: There is still some cross band activity; straight 144 Mc. contacts are rare. Possibly if channel 0 comes here we will have to populate this band more fully or trouble may be experienced by some with adjacent channel interference. The major 144 event here is the fox hunt held monthly. Doug 6ZDW and Ken 6ZBT enlisted the aid of John 6ZDN and Pat 6PH to run the last hunt. Two tx's on the same freq. were used in an effort to confuse the hounds. A 50 Mc. link between the two cars enabled them to switch from one tx to the other when the searchers got too close. After the ensuing chaos and confusion died down, supper was taken at Doug's QTH.

432 Mc.: Plans for the beacon are going ahead and the best methods for construction are being gleaned from overseas publications. Rod 6ZDS, Charles 6LK and Wally 6ZAA are making their experience on 576 Mc. available to the local boys and are a wealth of information.

576 Mc.: Rod 6ZDS and Charles 6LK arrange parties to go to Cape Naturalist and Mt. Solas, to attempt to push the 576 Mc. record over 100 miles. Unfortunately the Mt. Solas road was blocked by two trees so the attempt was made at Eagle Hill, approx. 25 miles further and 400 ft. lower. Contact was established on 50 Mc. and 144 Mc. and although 576 was a wash out a good day was had by all. The parties were Graham 6ZDB, Charles 6LK and Doug 6ZD at the Naturalist light house, and Rod 6ZDS, Dennis 6AW, Brian 6ZDF and Trev. 6ZDZ at Eagle Hill. The boys claim they will try again when Mt. Solas is accessable.

Charles 6LK gave a lecture on U.h.f. Receiving Techniques, which was both informative and thought provoking. 73, 6ZDM.

PAPUA

50 Mc.: Activity is at an all time low ebb in Port Moresby as conditions have never been worse. Your scribe managed to scrape up eight QSOs with 9ZBV during the month, but unfortunately has very little else to report. Skeds with Jim 9AS at Wewak, T.N.G., continued, Jim being heard on 5th, 6th, 7th, 8th and 9th at 1900 hrs., but signals were too weak to make contact. An Asiatic f.m. station was heard at S7 on 8/5/63 from 2220-2240 E.A.S.T. on 49.28 Mc. Troposcatter stations on 49.8 and 49.9 Mc. were heard on 17 days during the month. 9AS reports these signals are heard most days in Wewak and are audible throughout the day and night.

144 Mc.: No activity took place on this band during May.

432 Mc.: Plans are well under way for t.v. signals to be put on the air when the band is opened for use by 9AT/T in Port Moresby. Eddie is having considerable difficulty in talking the XYL into parting with sufficient of the green folding matter to make the plan eventuate, however all looks well for early experiments there. 9ZBV is talking about a mod. osc. unit for the band and 9AU has talked one of the local radio technicians into building the troughs for a trough line nuvistor converter, recently described in R.C.A. "Ham Tips." Only difficulty will be providing output at two different frequencies to receive Eddie on the t.v. rx and Paul on the regular BC342 rx. Looks like all will have an enjoyable few months in getting started on this band.

Your scribe has recently become the proud possessor of a pair of QQE06/40s and hopes to have a 150w. linear final in operation on 50 Mc. well before the next VK DX season, even though three months leave in VK2 will come along in the interim. 9CK is still inactive although he recently built a 2 x 6CW4 cascode preamp. for 50 Mc. All we now need is a DX break-through and Murray will probably have the incentive to get the tx back on the air. There is some possibility of a 2300 Mc. experiment taking place between 9ZBV and 9AU with borrowed commercial gear in the next few months. All depends on how good Paul is at talking to obtain the equipment which will need little modification to put it on the band. 73, 9AU.

NEWS FROM ZL: VIA BILL ZL2CD

A letter from Edgar ZL3WZ tells of activity on the West Coast. Edgar says that the 6 mx DX season was extremely good for them and all stations worked their share of DX. ZLs 3MF, 3PB, 3RZ, 3WZ, 3LA and 3SN were active. The first opening was on 19th Nov., working VK2ZVL on s.s.b. and other VK2s and on 3rd Dec. there was another lengthy opening. Followed on 6, 11, 16, 17, 20, 21, 22, 26 and 30. The latter being the best with band open 0900-2100 N.Z. time. All VK areas were worked except VK8 and VK0. ZL3RZ and ZL3WZ worked 150 different VK stations. Most consistent VK signals were VK2ZVL and VK2ZNL.

V.H.F. DX CLUB OF N.S.W.

Representing VKs 2ZAU, 2ZBX, 2ZFB, 2ZJN and 2ZVL, have an award for v.h.f. DXers. To further long distance working a certificate is being issued to Amateurs who fulfill the following:—

(1) Work all members of the club within a period of twelve months between the first and last contact.

(2) All contacts must be made over a distance **exceeding 200 miles.**

(3) A total of 18 points must be accumulated —awarded as follows: 3 points for working each member at his home QTH on any v.h.f. band at a distance exceeding 200 miles; 6 points for working them mobile on any v.h.f. band at a distance exceeding 200 miles.

(4) Application to be made to Club Sec., VK-2ZAU with full details from stations log for quick confirmation, return postage should be enclosed.

(5) Only contacts made after 30th June, 1962, are eligible.

These items are reprinted from "Break-In" for April 1963 and forwarded to me by Bill ZL2CD. We hope to give more ZL news from time to time.

VK3ZBJ/4

Glenn reports from the B.M.R. Seismic Party, C/o. Boulia, Qld., that he is active on 6 mx, but so far has not had any QSOs. Glenn says, "I am running 15w. input, and have a 7 el. up 30 ft. I have made a lot of field strength measurements with the mobile rx and all is working OK. I have heard VK3 signals many times, the best opening to date was on 5th May, between 1100-1230 hrs. with signals R5 and peaking S8. But I couldn't raise anyone; often hear carriers but no modulation on many.

"Have just shifted camp. We are about 60 miles west of Bedourie, getting nearer the VK8 border; how much closer I don't know. I hear 3WI's 40 mx broadcast each Sunday and spend the time from 1100-2200 calling and listening with the beam on VK3. Power is no problem as I have h.d. batteries plus a motor generator to charge them. I'm convinced the tx is operating OK but I've still to make a contact. So keep an ear out for me on 50.010 Mc. approx. My noise level is non-existent and I hear weak sigs where others are opposite. I am here until early Dec., so look forward to working into VK3 soon. 73, Glenn."

LOW DRIFT CRYSTALS

FOR

AMATEUR BANDS

ACCURACY 0.02% OF STATED FREQUENCY

3.5 and 7 Mc.
Unmounted, £2/10/0
Mounted, £3/0/0

12.5 and 14 Mc.
Fundamental Crystals, "Low Drift,"
Mounted only, £5.

THESE PRICES DO NOT INCLUDE SALES TAX.

Spot Frequency Crystals Prices on Application.

Regrinds £1/10/0

MAXWELL HOWDEN
15 CLAREMONT CRES., CANTERBURY, E.7, VICTORIA

S W L

OH0, KL7, ZD8, ON4, LZ, FF8, VP8, XW8, 5H3, W0

Sub Editor: J. M. (Mac) HILLIARD, WIA-L3074
57 Gardenia Street, Blackburn, Victoria
ADDRESS CORRESPONDENCE FOR THIS PAGE DIRECT TO THE SUB EDITOR

Well another R.D. Contest will soon be on us again, so now is the time to get that rx in good order or perhaps your aerial. This Contest is by far the most popular one of the W.I.A. Contests. While we are very pleased to see you support this event, it would be most pleasing to see some of the other Contests better supported by the S.w.l's. in VK land. Keep this in mind, then decide to have a go at one of the other events.

Now I would like to say a few words about QSLing. Without mentioning names, I think some of our s.w.l's. may have got the wrong idea from a few words that I wrote in a recent issue of "A.R." Now by sending return postage with a report will, of course, not guarantee results, but at least you will have a much greater chance of receiving a reply. I'll admit that some people keep the postage for themselves. This is certainly a low trick to say the least. However, I must decry the practice of sending a terse note reminding the Ham that he owes you a QSL. A friendly note may help. But remember that the Ham is under no obligation to answer your report, even if you do enclose return postage. Don't get the idea I am supporting the Ham who refuses to answer s.w.l. reports. Far from it. But I am trying to be fair to both parties. And I am just trying to make you see it in a sensible light.

S.W.L. GROUPS

New South Wales: The latest news from Sydney is that the Group was holding the annual elections in April. The N.S.W. Group meets at Wireless Institute Centre, 14 Atchison St., Crows Nest, at 8 p.m. on the third Friday of each month. The Group would be pleased to have visitors at their meetings in the hope of talking them into becoming members of the Division. Any further information can be obtained by writing to the Secretary, S.w.l. Group at the above address. The Groups would like to see more of their members attending the meetings each month.

Victoria: The Victorian Group has its general meetings on the last Friday of each month at 8 p.m. at 478 Victoria Pde., East Melbourne. Visitors are welcome at all the Group's functions which include technical visits, radio construction nights and general meetings. For further information contact the S.w.l. Secretary, 24 Fewster Rd., Hampton, S.7, Vic. The Group would like to see more of the members attending the meetings each month.

Other States: We have not received any information from the Secretaries of the Groups in other States so far, after requesting them to supply information for publicity use. If you are interested in joining the W.I.A. and thus being entitled to an s.w.l. number, we suggest you write to the following address for more information about activity in your State:

Queensland: Registrar, Qld. S.w.l. Group, C/o. W. Jehn, P.O. Box 61, Ipswich, Qld.
South Australia: Secretary S.w.l. Group, Box 1234K, G.P.O., Adelaide, South Aus.
Western Australia: Secretary S.w.l. Group, Box 1002, G.P.O., Perth, West. Aus.
Tasmania: Secretary S.w.l. Group, Box 851J, G.P.O., Hobart, Tas.

MAIL BAG

Victoria: Maurie recently became the proud father of a daughter. Maurie is not finding much time for DXing these days, however the rx still gets a warm up now and again.

If we have enough members who can listen on the v.h.f. bands, we may be able to organise a contest in conjunction with the v.h.f. field days that are held during the warmer months of the year. Give it some thought chaps.

Congrats to Ron Young for his fine effort in the Ross Hull Contest. Noel L3101 has not been active for a while due to personal reasons. As I was unable to get to the last meeting of the Group I am unable to report anything from there this month. Albert, who is one of our younger members, is at present very busy studying for his ticket. Good luck Albert.

Greg L3138 has at long last erected his 14 Mc. rotary dipole and is very pleased with the results from it. Your scribe was very pleased to log 5R8CE/FH8 a few weeks ago on 14 Mc. s.s.b., but can anyone help with his QSL manager. Craig Cook is doing a good job with the s.w.l. notes over 3WI each week. However he is finding the old trouble, very few members help him out by providing news, so how about it chaps, drop Craig a line or else ring him at LW 1773. His address is 10 Foch St., Ormond, S.E.9.

Michael L3133 sends along an interesting letter telling of his activities. At the moment he is doing a lot of snooping around 7 Mc. at 3 a.m., yes that's right—3 a.m.—and is being rewarded for his efforts. Some time ago Michael gave a rx to his YL and at the present time Denice is picking up the DX better than he.

The next visit of the Group will be to the O.T.C. tx station at Fiskville, via Ballan, on Friday, 5th July. Further details will be announced at the next meeting of the Group.

New South Wales: Chas L2211 sends along an interesting letter telling of his activities. He has been rather busy of late repairing radios and t.v. and as a result he has not had so much time to devote to s.w.l'ing. However some interesting QSLs have come to hand: I1AHL, SP7HF, HC1CC, CT5TI, DJ2ST. Nice going, Chas old boy.

Don L2022 has been fairly busy but has found a little time to check the bands. Can anyone help Don as regards info on FO8AA and KC4AAC? Over the Easter period Don had a real feast with the DX, best catch was HC8CA who was on an expedition to the Gallapagos Islands.

Queensland: Afton L2136/VK4 is still recovering from his recent mishap on the Tinaroo Dam. However, he has had his rewards also because recently he received a batch of QSLs from the VK4 QSL Bureau, which had been there for two years. Well it just goes to show that we should not despair too soon if that QSL fails to come along. Afton is hoping to visit VK3 in October for a quick visit. Fine, and we are looking forward to your visit and you will meet some of the boys.

Western Australia: Peter L6021 has been hard at it as usual. He is hearing plenty of DX, mainly on 7 Mc. c.w. Peter listens to the Novice W stations and has made a lot of friends with our American friends. Peter has been an s.w.l. for about four years and in that time he has done very well indeed. He has logged a grand total of 5,230 stations (up till 25th May). That is a good effort Peter, and you sure must have spent some hours at your rx. Peter is thinking that he may get a new rx in several months time.

73, Mac Hilliard.

DX LADDER

	Countries		Zns.	S.s.b.		W
	Conf.	Hrd.	Conf.	Conf.	Hrd.	Stat.
E. Trebilcock	277	285	40	—	—	50
D. Grantley	113	259	38	20	104	35
A. Westcott	93	159	31	9	107	11
M. Hilliard	75	224	33	23	153	11
M. Cox	72	223	29	39	150	18
P. Drew	57	197	26	25	114	12
N. Harrison	44	119	29	4	20	32
I. Thomas	41	139	20	16	97	14
D. Coggin	10	92	7	3	60	14
G. Earl	9	100	7	1	72	—

YOUTH RADIO CLUBS

Last month's message—this month's message—and **every** month's message! If you can't spare an hour a week for a Y.R.C., **form a group.** Another message is in the cryptic numbers 123467. Perhaps the missing 5 has the ultimate secret weapon to get our frequencies back (or even preserve the skimpy lot we have) at the next I.T.U. Conference.

Fine news from Ken VK3TL this month. He sends me some well-designed Application Forms which help him with the information of most use. Negotiations are now in progress in VK3 to have the Boy Scouts' Association recognise their Proficiency Certificates. Ken expects to issue the first Newsletter in the next few weeks and promises me a copy. A display giving publicity to Y.R.C. was set up in the recent "Wonderful World of the Young" at the Exhibition Building.

Keith 2AKX has three good passes in Junior Certificates at Booragul High: Raymond Elkin, William Brown and Susan Brown. Congrats. to the three.

Here at Lyneham High, we also have three Junior Certificates: Jim Watson, Bill Tweedie and Roger Davis—who deserve congratulations. They are all straining at the leash for Intermediate Certificate. Roger hopes to finish his A.O.C.P. in July and join George 1GB later—he's not 16 until October.

Have you Club Leaders developed your full capacity for acquiring material? Translated into the vernacular, "How's your scrounging?" Here are a few hints. When you approach radio dealers (large and small), make sure they see that you will not do them out of any business, but actually create more customers for them. But **primarily** give them the straight truth, i.e. that you are running your club for the benefit of the kids (joining the W.I.A. later is not guaranteed) and treat all the businessmen you speak to as gentlemen with hearts—and I mean it. Business firms which refuse to help you should not be in any way threatened (with publicity, or otherwise) as they will create their own bad-will in the long run. You should not be afraid to ask if necessary for a straight donation of usable parts (I never handle money myself but any proper organisation with proper accounts could certainly do so) because you are donating your own time.

However, I think you will get more response in asking firms for (a) material still useable but with little sales value, (b) any help which does not actually cost them anything. An example of this last mysterious commodity has happened in a couple of cases with me. From one source I acquired two damaged instruments which I took to the Australian agents. The agents saw my point and agreed to make a reasonable repair provided they could wait until they had a serviceman temporarily without an urgent job. In one case, this probably cost the agent nothing but the trouble of arranging the matter (for which I am still grateful), but in the other case the agent went to a lot of trouble and did an extra-special job beyond what was asked. Try your luck!

In regard to the donation of old but useable parts, there are literally tons of good components discarded every day in every big city. Try any place using wire for the remnants they always leave on their reels—and have you seen the bundles of good hook-up wire taken out of a telephone circuit for one fault? Any large radio and t.v. repair place will have scores of old chassis to throw away every now and then—mostly with very good gangs, i.f's., power transformers, resistors and (some) condensers. If you hear of a fire, pay the remains a visit—when the foreman or insurance man is there! Old t.v. sets are now being thrown away, some are too old and cranky to repair any more. An inactive Amateur in your district might get generous.

Such organisations as Rotary, Lions, Apex, J.C., etc., are wonderful if they adopt you as a project. A door-knock campaign in one block will always bring unexpected riches. Your local radio or t.v. station will usually give you a free advertisement or even a broadcast interview. Have a go! And send me your tallest story in the field of scrounging.

My apologies to PanSy for over-estimating his powers. No hard feelings—I'm just a little needle trying to find the right posterior. Always glad to see you if you come this far, PS, and we'll have a refresher. Perhaps you could tell me then whether Port Pirie is the capital of South Australia!

Next month I launch a competition for the best design of a portable Y.R.C. exhibition and/or transceiver to go to exhibitions, fetes, etc. Watch for it, you avid readers—but reluctant writers. (Haven't heard recently from VK4 and VK6). 73, Ken 1KM.

FEDERAL AND DIVISIONAL MONTHLY NEWS REPORTS

(SEND CORRESPONDENCE DIRECT TO DIVISIONAL REPORTER NAMED AT PARA. END)

FEDERAL

F.E. MEETING

Present at meeting held on 5th June, 1963: VKs 3UM, 3ZS, 3JL, 3QV, 3AG, 3NI, 3CS, 3ABV and 3IE, at whose residence the meeting was held.

3JL drew the meeting's attention to passages in "Hansard," April 1963. These are reprinted herewith. Discussion took place re the VK/ZL Contest and ZL's virtual bull-dozing of our acceptance of "Oceania" as part of contest area. Decided to seek opinions of members regarding this matter before taking further action.

The new Membership Certificates are to hand and will be distributed to Divisions as fast as Fed. Pres. can sign them!

The Secretary states that the editing of the Fed. Convention minutes is almost complete and copies should be available to Divisions in a short time.

For those intending to gripe to F.E. (whose address is: The Secretary, F.E., C/o. Box 2611W, G.P.O., Melbourne), meetings are held on the last Wednesday of the month (usually).

We have heard rumours of savage band-slashing in the h.f. region. As far as we know there is absolutely no substance to it, and we have our ears pretty close to the ground! But using the bands won't hurt!

EXTRACT FROM "HANSARD," APRIL 1963

Broadcasting

Mr. O'Brien asked the Postmaster General, upon notice—

With the foreseeable growth in the use of the radio spectrum in the next decade, has the Government considered the possible use of the Australian Broadcasting Control Board as the impartial body empowered to control absolutely the allocation of frequencies to the various services instead of having to periodically set up a frequency allocation committee?

Mr. Davidson.—The answer to the honorable member's question is as follows:—

The control of frequency allocations has been considered by the Government on previous occasions. It is considered that the interests of Australian users of the radio spectrum are best served by the present arrangements in which frequency assignments are made through the Post Office and under which the Australian Broadcasting Control Board determines the individual frequencies to be used for broadcasting and television services in accordance with the frequency bands available for those particular services under the Australian Table of Frequencies. The committee system provides a desirable avenue for obtaining advice and for the rationalisation of frequently diverging interests of the various users, when consideration of special problems arises.

Australian Broadcasting Control Board

Mr. O'Brien asked the Postmaster General, upon notice—

In view of the growth of radio, television, communications and all other radio frequency services, could the organisation of the Australian Broadcasting Control Board be improved by being less diversified and by being organised in a manner similar to the Federal Communications Commission in the United States of America?

Mr. Davidson.—The answer to the honorable member's question is as follows:—

The control of frequency allocations is considered to be much more complicated and diversified in the United States of America than in Australia. The Federal Communications Commission in the United States of America has many functions; as they affect frequency allocation matters, that Commission has only limited control and jurisdiction because it does not have authority over all radio communication services.

1963 EASTER CONVENTION

The 27th Federal Convention of the W.I.A. was held in Sydney over Easter and was attended by delegates from all States as well as members of the Federal Executive. Those attending were the Federal President, Bill 3UM; Federal Vice-President, Max 3ZS; the Federal Secretary, Jay 3JL; Federal V.h.f. Manager, Dave 3QV; Pierce 2APQ, N.S.W. delegate; Vic 2VL, N.S.W. President and Observer; Jim 2YC, Observer; Michael 3ZEO, Victorian delegate; Al 4LT, Qld. delegate; Geoff 5ZCQ, S.A. delegate; Ron 6KW, W.A. delegate; and Ted 7EJ, Tas. delegate. During the various sessions quite a few of the local Amateurs from VK2 sat in to listen to the proceedings.

The opening of the Convention by the Federal President was broadcast over VK2WI via a 2 mx link from Atchison Street, Crow's Nest, the N.S.W. Institute Centre, where the Convention was held. These surroundings proved to be most comfortable and the proximity of the tea urn eased the tension during the sessions. Although the agenda was not as full as in previous years, the nature and importance of several of the items made up for the numerical shortage.

Possibly the most important items were those dealing with the Federal Constitution of the W.I.A., the policy which was established for Youth Radio Clubs and the preliminary deliberations on the various factors of W.I.A. representation at the next I.T.U. Conference. It now appears that certain essential clauses delineating the formation of a Federal Company will be agreed on which a new Constitution will be based. It was considered that it may well be possible to establish agreement to this document by Easter 1964. Several aspects of Youth Radio Clubs were thoroughly discussed and providing the appropriate authorities give their agreement to the plans, the future of these clubs appears to be very bright. The Divisional delegates agreed to the various aspects of the representation at the next I.T.U. including the means of raising the necessary finance and the briefing of the delegate.

Many other matters were discussed and decisions made which will form the basis of the Federal Executive's work over the next year. In addition to the new work, the Executive has some unfinished business from the last twelve months which will also be completed.

All in all, it was a most delightful and beneficial Convention and the thanks of all the visitors will be handed down to posterity in their recorded words of appreciation for the hospitality of the VK2 boys and their wives, in the official minutes.

It was finally agreed that next year's Convention would be held in Adelaide, so maybe Geoff will be able to substantiate his claims for the city of Churches. We will all come over (if PanSy makes room!) (He'll have to make room soon, with all these Federal notes.—Ed.)

YOUR OPINION PLEASE ON THE VK/ZL CONTEST

Traditionally the VK/ZL Contest is VK and ZL working the world, with certificates to the highest scorers in any country. N.Z.A.R.T. want to make Oceania part of the VK/ZL group (and did so last year). Do you agree with this move, or not; and have you any other suggestions regarding this Contest? Write to the Secretary F.E., Box 2611W, G.P.O., Melbourne, Vic.

— • • • —

FEDERAL QSL BUREAU

SM5AIO, QSL Manager for S.S.A. writes: "The S.S.A. QSL Bureau receives many incorrect QSL cards from foreign stations because they have heard wrong or written wrong. In Sweden there are call signs SM1-7 and after the figure two or three letters. The letters are: AA-ZZ, AAA-AZZ, BAA-BZZ, CAA-CZZ, DAA-DZH. Only 67 per cent. of the Hams are members of S.S.A. and they get their cards via the Bureau, all the other QSLs will be returned."

Results of the 1962 Millennium S.P. Contest show: Australia, c.w.: VK2APK 2,461 pts., VK5NO 2,204 pts., VK2RA 234 pts., VK3XB 160 pts.; Phone: VK2APK 374 pts.

SILENT KEY

It is with deep regret that we record the passing of:—

VK7GA—G. D. Aschman.

Information on the 9th European DX Contest, 1963, and the 4th All Asian DX Contest, 1963, is published elsewhere in "A.R." Full copies of the rules may be obtained from the Federal QSL Bureau.

Results of the 3rd All Asian DX Contest, 1962, are: Continental winners—Multi Band: 4X-4NJ 64,688 pts., UT5AA 6,666 pts., WA6IVM 1,232 pts., PY4ABH 28 pts., 5A1TW 1,248 pts., VK2GW 2,240 pts. Single Band: 28 Mc., JA1HGY 1 pt.; 21 Mc., JA6PY 312 pts.; 14 Mc., 4X4FU 17,325 pts.; 7 Mc., JA1AEA 4,509 pts.; 3.5 Mc., 4X4DI 774 pts.

Detailed Australian scores are:—

	Band	Pts.		Band	Pts.
VK2GW	M	2240	VK2APK	14	902
VK2RA	M	120	VK4SD	14	244
VK3AXK	M	76	VK5RX	14	204
VK3XB	M	16	VK3ARX	14	20
VK4SS	7	102	VK2AYK	21	7
VK3KS	7	1			

Despite the continued poor conditions prevailing on most bands, QSL traffic through the Federal Bureau is showing only a 10 per cent. drop.

Flo Majerus, W7QYA, and Al Scarlett, W2CC, both express thanks to all who contributed to making their recent separate visits to VK so interesting and momentous.

Due to confusion arising from the printed call signs and also from the Morse equivalents, between VK5NO and VK5NQ, Jeff decided to seek an alteration to his call sign. He had almost settled for VK5YT before he realised that the Morse equivalent remained unaltered. He then switched to VK5ZP.

Interesting visitors to Melbourne during May were Tubby Vale, VK5NO, this time in a nautical capacity, and Alec Mather, VK2JZ. Alec contributed a fine article in the June issue of "A.R." It seems only yesterday that yours truly gave Alec his first QSO, but he assures me it was 34 years ago! The passage of time is frightening.

—Ray Jones, VK3RJ, Manager.

— • • • —

NEW SOUTH WALES

The monthly general meeting was held on 24th May, in the usual location of Wireless Institute Centre, Crows Nest. A good attendance was attained despite the fact that the meeting night coincided with Empire Night festivities. Those present were treated to a most informative lecture by that old stalwart Bob Winch, VK2OA. His subject was "Principles of A.G.C." This lecture proved to be a very absorbing one and as usual it was well into the morning of 25th before the last stragglers wended their way homeward. It is Bob's intention in a subsequent lecture to be presented to continue his subject well into the s.s.b. a.g.c. requirements field.

Council met on Thursday, 30th May. At this meeting the President had the regrettable duty to read a letter of resignation from Councillor John Birdsall, 2QJ. John's business activities will be necessitating his absence from Sydney a great deal in the near future and he felt that such an arrangement would not do justice to the position he held in Council. John occupied the posts of Vice-President for the Division and Education Officer. Council, with regret, accepted this resignation and will co-opt one of a number of volunteers to fill the vacancy in Council.

Harold 2AAH has been appointed Education Officer, a post that this keen member knows particularly well.

It is very gratifying to hear further from Rex 2YA, to the effect that a very active Youth Radio Club is being formed at the Hurstville Technical College. It appears that this great youth training scheme is starting to snowball with new and projected clubs and stations becoming realities in a great many areas. Congratulations Rex and your helpers; keep up the good work.

Whilst on the subject of Youth Clubs, we do earnestly remind readers of the need of the organisers of the scheme for various radio publications, together with any usable radio or kindred gear that may at present be redundant in your own shack. Remember, equipment and magazines which may be of no value to yourself could well be the means of starting a group of beginners on the road to an active future in the Amateur service. 73, 2SW.

HUNTER BRANCH

As the notes must go to press before the meeting, no report is included this month. A report of both June and July meetings will be included in the August issue.

Bob 2EY is having plenty of success with the 144 rig, but during the day he has plenty of difficulty in resonating the gear on 144. As night falls, all is well but in the daytime, well, you ask Bob. It seems that the locals at Raymond Terrace thought that cracker night had come early when they saw the smoke and flames from the shack of 2ZMO, but not to despair dear reader it was only the power supply and all is well again now as the signal will prove.

You've no idea the hornets' nest that was stirred up following the remarks about the Cessnock coathanger scandal. The gentleman concerned claims that nothing of the kind ever happened and Sherwood, the intrepid reporter who gathered the information, was in such a paroxysm of laughter when he read the report that he drove Chris' van right off the road and almost wrecked it. So that makes his score two and he still has three years to go!

And vengeance—when my letter box exploded the other night all the remains to be found were an 807 socket with a note saying, "1970, eh!" In deference to those kind coalfields men, let me please say that Cessnock is kept on the v.h.f. map by 2AIY, 2KS and 2ZCV, not to mention the fine signal from the old man himself, now that he's a regular contributor to the Monday night broadcast. Again with due respect that's Chris 2PZ. And as for Sherwood, you just wait till next cracker night. (He still isn't on.)

Bob 2AQR has almost finished the new installation and is calling tenders for the supply of aerial wire to go between the two masts. Stuart 2AYF is back from holiday and is finding time from his new position to get on the air on v.h.f One day he'll be on the d.c. bands as well and if this doesn't happen soon he'll be beaten by Stan 2AYL who is reported to be modifying an AT5. If he has the same success as ZL Bill he should hear another big signal. When that large hole appeared in Kev's backyard all the neighbours asked if he were preparing for a swimming pool? (All the P.M.G. technicians are having them these days.) And then he says when asked, "It's for the new mast." And those at the ZKW house were just waiting for summer.

There's a dark horse up on the hill at Merewether. He quietly gathers together his shekels and brings home a brand new, or good as new, rig—country of origin—I-land. So if you hear Frank 2APO on the air give him a shout. John 2ZJG is not able to come to meetings these days because of the job, but he's making up for it by getting the new shack under way. Bill 2ZWM is now putting out a very respectable signal on 2, especially strong at the ZCT residence when Tony can spare time from the adding machines. Someone handed him a charged electrolytic the other day—what a nasty trick; I must try that.

Bill 2XT is having a great deal of success with JAs on 14 megs and is reported to be putting in a mighty signal in rising sun land. He may also be preparing for another oriental jaunt this year. His good pal, Ern 2FP, is content to stay home though and is waiting for 28 megs to come good again. Norm 2ZNF whose voice has not been heard for many a moon is at last having some success and may even now be on with the local net. As for Gordon 2ZSG, the rumour about the new antenna was only a tale and there is no skeleton in the cupboard although he has plenty of old biscuits. And who hasn't? I only asked about biscuits at Martin's Laundry the other day and I had to put money in the swear box. Ever been knee deep in reconditioned tuners? Harry, who promised to be on as soon as ABHN hit the air, has really gone one better and now we may never drag him away. Yes there is a one-eyed monster at the AFA house and the modulator is on the blink, so my prediction about Stephen may be true.

As far as the associate members are concerned, one would think that we had been conducting a recruiting drive. There is at least one and maybe three new associates from the lakeside. First on the list is Otto, ex-DL3ZG, who has applied for a VK call and the others are Pat Maloney and Wes Brown, whom we hope will soon help us with the QRM. Allen Legge, who has that red phone, remember, will be a regular attender at meetings in the future, thanks to Kev 2ZKW. Max, my associate operator, Belmont Bob and Ross are still delving in the mysteries of Class C and into the circle has come Pat as well, while Mrs. Bob keeps us all well refreshed with cups of tea. Ta Mrs. Bob.

Round Marmong way they still cannot hear the 2AWX signals on Mondays, so all the gang arrive in the shack to listen in—even Dennis with his water bottle and cigar. Of course all this will change when the new shack goes up—when! A notice will say, "No naked lights beyond this point."

Seriously though, do you listen to the Monday night broadcast? You'll find us there at 0900 G.M.T. on about 3596 with a relay on 144.45 and they say the signal is strong—except in Marmong. Even Dave 2DE and Tas 2GV are able to hear us in the furthest outposts of the State so listen in, we've two announcers. And even though it's cold and bleak, you are invited to our next meeting. This will be held in the usual place, room 15, class room block of the University College, at 8 p.m. on Friday, 5th July. And oh, I almost forgot—you won't forget to fill in your tax return will you. 73, 2AKX.

— • • • —

VICTORIA

COUNCIL MEETING

The June meeting was the first meeting of the new Council for '63/64 and was therefore mainly with the routine appointments to the many jobs associated with the running of the Division. These are far too long to enumerate here. With the exception of the broadcast engineers' roster, all positions were filled. We still need two or three engineers who must have full licences, so if you can assist please contact the Secretary.

Correspondence was received from the Editor of "A.R." asking for details of the Division for inclusion in the next edition of the "Call Book". This is to be attended to by the Secretary. Bob Boase wrote advising that he had been discussing the possibility of a trip to the Flying Doctor Base at Broken Hill with one of the airlines. To cut a long story short, if we can find 24 starters we can charter a plane at a cost of £18/10/0 per head. Anybody interested should contact Bob.

The Treasurer reported that as at 10th May, 647 members had paid their subs., and that unfinancial members would not receive the magazine after June.

There was discussion on the possibility of issuing a monthly News Letter to all members. Opinion on this matter was far from unanimous, but it was eventually agreed that the work and effort involved could be better used in other directions.

It is proposed that a representative be sent to the next I.T.U. Convention at Geneva. F.E. has estimated the cost at £3,400, of which this Division has to find £800 during the next two years. A circular letter is to be sent to all Victorian Amateurs asking for a donation of £1 either in one hit or two yearly payments of 10/-. In your own interests this appeal is strongly recommended. A separate bank account is to be opened for this fund to keep it divorced from the other monies of the Division.

The need for a Publicity Officer was discussed. This matter arose from the lack of publicity on the Division's participation in the recent emergency exercise. The difficulty of finding anybody with access to the news outlets such as radio and papers is our problem. The President undertook to make the necessary enquiries with the view to finding such a person. In the meantime, if you know of such a person, let Council know and we will take it from there.

The instrument library is short of a number of items which should have been returned long ago. Whilst Council is loathe to take drastic steps to remedy this position, something will have to be done. An early suggestion is that a rather stiff deposit will have to be lodged before any equipment is removed from the premises, the full deposit only being refunded if the equipment is returned within a stipulated time. Those who are playing the game have nothing to lose, those who are not will be helping to buy new equipment. Fair enough?

The Gadsden Trophy has not been awarded for several years. This trophy is awarded for outstanding administrative work for the Division. Council was unanimous in its decision to award the trophy to Michael Owen in recognition of his efforts over the last two years, especially his work in retaining the use of the rooms at 478.

The Division still continues to grow and Council received 13 applications for membership. These will be recommended to the next general meeting. What a pity we do not meet these people in person. I forget when we last met a new member at a meeting.

The President reported on the lack of disposals during the last year. He explained that we had been offered quite a lot of equipment which had to be refused due to the lack of facilities to handle it. We urgently need storage space at ground level at a reasonable rental. They should be accessible at weekends and convenient to the city. From personal experience, I know this is a tall order, but if every member keeps eyes and ears open something will turn up. That covers Council, so now to the other matters.

HOBBIES EXHIBITION

At very short notice, Kevin 3ARD organised a display at the Hobbies Exhibition. Under the circumstances, it was a darned good effort, but from the Amateur Radio point of view, left a lot to be desired. There was very little "home-brew" equipment on display, which gave many of the visitors to our stand the impression that everything had to be "store bought" at considerable cost. Some of the home made gear submitted for display was, to say the least, not up to standard and was carefully hidden from the public gaze. Now I do not in the least wish to offend those who did submit equipment, but if we are to create a good impression with the public, anything we do or show should be a workmanlike job. There is more to this hobby of ours than studying a few books and passing an examination.

The bright side of the exhibition was the number of enquiries we received regarding our activities, not only from the youngsters, but in all age groups. The two enquiries I liked, I struck on the Saturday afternoon. The first was from a lass in her early twenties who obviously came from W land and who wanted to know where she could buy the equipment so she could talk to the folks back home. Appears she had ideas of a ready made phone service. She lost interest when she was told of the licensing position.

The real gem was the gentleman of European extraction who wanted to sign his son up on the spot. Investigation to find out the class of membership desired led to him pointing out his son. He must have been all of four summers! This I felt was the one occasion when youth should be discouraged and suggested that the lad was a little young to join us, but if the father was interested we would be pleased to have him with us, and no doubt in time the boy would follow in father's footsteps. Father, however, was not that interested.

Undoubtedly others who manned the stand had similar experiences, but I have not heard of them. As a suggestion, I would like to see all those who helped in this venture get together for a post mortem with the idea of ironing out the faults and making a real good show next time. After all, there is another one in view, and the time to plan is now, and a sub-committee is really needed.

JUNE MEETING

The June meeting was held in the rooms at 478 on Wednesday, 5th June. The meeting place was changed as an experiment. After making two counts, I made the attendance 45, a very decided improvement, but whether this was due to the change of venue or the interest in f.m. I do not know. Late comers had trouble finding seats, which could be a good or bad thing, depending on how you look at it.

Anyway, everybody's attention was very much on the lecturers, John 3ZEL and George 3ZJQ. John covered the theoretical aspects and George topped it off with some very good "do it yourself" circuitry. Peter 3BZ taped the lecture for the use of interested parties, but how he has covered the liberal use of the blackboard I don't know.

The magazine reps. did not fail to notice the large wad of typewritten notes that John had on hand, so after the lecture, both he and George were trapped in a convenient corner and persuaded to knock up an article for publication. As of now they are warned that they will be hammered until such time as said article arrives in the Editor's post bag.

A vote was taken to ascertain the feelings of members about continuing to hold meetings in the rooms. Although there are several minor disadvantages, the feeling was that we should use the rooms. (3IE will now ask the railways to divert the underground project to take in Victoria Parade, with a station at 478.) Sorry Alf, but I just had to have a shot at you.

Although the meeting closed officially at 10 p.m., many "eyeball" QSOs were under way during the tea and bicky session and went on till much later. All in all, the meeting was voted a big success. Next month's speaker is not as yet known, but we hope to again have a full house.

My many activities prevent me spending time on the air or even listening, so if anybody hears any interesting personal items, suitable for publication, they would be doing me a favour by letting me know of them. Perhaps I should explain that I originally undertook the reporting of Council matters, but things just grew from there, until now VK3 takes up almost as much space as 5PS fills. I'm speaking of magazine space and not geographical or physical, so sit down PanSy. Which reminds me, did he mean all those nice things

last month, or is he looking for a friend on the Publications Committee? After all my efforts not to reveal my identity, the cat has been let out of the bag, so expect Mr. 5PS will not lose any opportunity of sniping at me in future. Shades of snakes, frogs and "lubberly girls".

Well I see the N.E. Zone reported the State Convention for me, so now let's see what they have for this month. Take it away fellows. 73, 3AFJ.

SOUTH WESTERN ZONE CONVENTION

The W.I.A. South Western Zone Convention, held on 27th and 28th April, 1963, started officially on the Saturday afternoon with the annual meeting, held to install new office-bearers for the next twelve months. All visitors were welcomed. Col Ferguson, from Mt. Gambier, took the chair, whilst new office-bearers were installed.

There was a good attendance of members from all parts of the Zone and the following officers were installed: President, Bob 3IC; Vice-President, Bill 3WK; Sec./Treas., Don 3AKN; Publicity Officer, W. J. Wines; Zone Station Officer, Don 3AKN; General Committee: Harry 3XI, Bill 3XE, 3ZKL, Jim 3ABT, Brian 3XN, Gordon 3AGV, Bill 3WK.

The Mayor of Warrnambool, Cr. P. O'Sullivan, who officially opened the Convention at the official dinner held at the Lady Bay Hotel, said it was gratifying to see such an excellent gathering of men interested in such a worthy hobby. Cr. O'Sullivan spoke of the good work done by the Amateurs in times of fire and flood. He concluded by wishing the Convention every success. After the official dinner, 3DX showed several films, after which supper was served, bringing the evening to a close.

On Sunday all Convention activities and entertainments were held at Jubilee Park, near Warrnambool, where many items of interest were discussed. Before this took place Ron 3ZER and XYL and family, who came down from Ballarat for the day, were welcomed, also 5ZER and fellow Amateurs and their families.

Best mobile was won by Bill 3WK. During the afternoon a scramble was held to ascertain the number of stations each Amateur could work on mobile equipment in twelve minutes. This was won by Bill 3XE and Brian 3XN, with a total of eight stations each. The fox hunt on s.s.b. was won by Dale 5ZER. He received an s.s.b. tx, which was a duck in a box—very nicely donated by 3WK, and built like tx. The ladies served a very nice picnic lunch, which was enjoyed by all present. Members take this opportunity to thank them for all the work they did.

After lunch the progressive tx hunt was held. This was won by Bob 3IC and Dick 3ABK. Good work boys. The prize was the Geelong Amateur Radio Club trophy. An auction sale of surplus gear was held with Peter 3FX as auctioneer. We think he should take it on for a living. He did an excellent job, nearly all the equipment was sold. Many thanks to Ray 3ZQ, who made a donation to the Zone from money received from the sale of his surplus gear in the above auction.

Ted 3PS organised a "number of beans in the jar" competition. Helen, 3XN's XYL, won with her total of 455 which was the nearest to the correct total of 451.

We would like to take this opportunity to welcome Ray 3LK to the Zone. 73, Bill Wines.

WESTERN ZONE

Nothing sensational from the Western Zone this month. Merv. 3AFO did his best to enliven these notes by starting a fire on a tag strip. We understand that he had to replace an 866 in the power supply after the arc over. An expensive way of keeping the shack warm! Herb 3NN and son, Garry 3ZOS, have been on 1 mx mobile, running 1w. to a 6J6—best effort so far two miles. Pity the band will be lost so soon. 432 Mc. then, Herb? Vic 3AEQ has returned to the bands after a break for shack renovation. Vic had a little trouble getting the rig on the air, but finally made it for the zone hook-up on 5th June.

Trev 3ATR has been keeping the Zone on the v.h.f. bands with 3ATN—continuing activity on 2 mx. Brenda 3ZKN and John (or Wilson—same bloke fortunately.—3ZKN) 3AFU are still using the f.m. equipment. No DX as yet. 3AFU now has an AT5 on 160 mx and has had one contact with Don 3AKN. The technically incompetent 3AFU claims that an AT5 is an easy way to get on to 160 quickly. If 3AFU can do it, then anyone can.

The advent of Channel 3 will probably have some effect on Amateur activity. Signal reports on 3 vary quite a bit. 3AFU is getting a good signal with only occasional slight fading, other stations which are not in the shadow of the Grampians report quite a lot of variation in signal strength and picture quality. 3AFU is using R.T.V. & H. (more or less) antennae on Channels 3 and 6. They are hand-built from first quality fencing wire!

People we haven't heard for a while: 3AOS, 3ATS, and 3AZM. Why haven't we heard them? Probably because we haven't on very often ourselves. It is rumoured that 3ASA and 3AJJ may be heard soon. We are also hoping that there will be a couple of new calls soon. Back to the goggle box, 73, 3AFU and 3ZKN.

MIDLAND ZONE

Notes for this month start on a sour note, why? Well we held our Annual Meeting at Maldon on Sunday, 12/5/63 as a proposed picnic day and what happened. The large attendance of eight; VKs 3ZIK, 3DG, 3AHA, 3APJ, 3ADB, 3FO, Graham Young, Dennis Houey, with apologies from 3ND, 3ZIJ, 3SV. Unfortunately I myself was unable to attend as my duty commitments tied me to Castlemaine. However I would like to hear the reasons for the non attendance of other Zone members. The quickest way to kill any organisation is to ignore it, and members of the Midland Zone are doing just this, why?

On the credit side, we still have activity on the air by members who generally attend the meetings and as 7 Mc. has been open, I have made some good contacts with VK3s. 3ZIK is still plugging away on 2 and 6 mx. 20 mx has had some good openings and I have heard 3MO hounding the DX with success. Personally I have had little time to go on the air except Sunday afternoons. Jim 3SV is inactive, being snowed under with other responsibilities. As for the rest of the Zone, no news. 73, 3ND.

NORTH EASTERN ZONE

3VL was due home late in May, following treatment at a Melbourne eye centre. Not many on the zone hook-ups and the 80 mx band has been terrible. Some more indecisive discussion re the next zone convention. 3AYD allowed wife to clean up shack some time ago, resulting in misplacement of valuable records, i.e. index of stations worked. 3FW mobile on 40 and 2 mx, the latter on f.m. 3ADZ contemplates constructing f.m. car set himself. We had a gathering of chaps at Shepparton re Y.R.C. All set to go except we need more info about numbers of adult instructors and how many youths per instructor. We've written away for this gen.

Heard 3CI pulled down his tower and then put it up again. Something about changing from horizontal stacked yagis to vertical stacked, or vice versa. Did reduce directivity we understand. 3CI, 3APF, 3VL, 3ACK, 3ZJH have regular daily skeds on 2 mx at 1230. 3APF still chasing the elusive ultimate in t.v. video strips. 3ZJH suffers from a bit of audio feedback. Have not had a feel of the Kinnear Trophy as yet. With the vast amount of rain

BRIGHT STAR CRYSTALS

FOR ACCURACY, STABILITY, ACTIVITY AND OUTPUT

Our Crystals cover all types and frequencies in common use and include overtone, plated and vacuum mounted. Holders include the following: DC11, FT243, HC-6U, CRA, B7G, Octal, HC-18U.

THE FOLLOWING FISHING-BOAT FREQUENCIES ARE AVAILABLE IN FT243 HOLDERS:—
6280, 4095, 4535, 2760, 2524 Kc.

5.500 Kc. T.V. Sweep Generator Crystals, £3/12/6.
100 Kc. and 1000 Kc. Frequency Standard, £8/10/0 plus 12½% Sales Tax.

Immediate delivery on all above types.

AUDIO AND ULTRASONIC CRYSTALS—Prices on application.
455 Kc. Filter Crystals, vacuum mounted, £6/10/0 each plus 12½% Sales Tax.

ALSO AMATEUR TYPE CRYSTALS—3.5 AND 7 Mc. BAND.

Commercial—0.02% £3/12/6, 0.01% £3/15/6. plus 12½% Sales Tax.
Amateur—from £3 each, plus 12½% Sales Tax.
Regrinds £1/10/-.

CRYSTALS FOR TAXI AND BUSH FIRE SETS ALSO AVAILABLE.

We would be happy to advise and quote you.

New Zealand Representatives: Messrs. Carrel & Carrel, Box 2102, Auckland.
Contractors to Federal and State Government Departments.

BRIGHT STAR RADIO

46 Eastgate Street, Oakleigh, S.E.12, Vic. **Phone: 57-6387**

With the co-operation of our overseas associates our crystal manufacturing methods are the latest.

CHOOSE THE BEST—IT COSTS NO MORE

O. T. LEMPRIERE & CO. LIMITED
Head Office: 27-41 Bowden Street, Alexandria, N.S.W.
and at Melbourne • Brisbane • Adelaide • Perth

recorded in this area everybody feels miserable and very little has been done in the way of experimentation. 73, 3ASY.

MOORABBIN & DISTRICT RADIO CLUB

The Club has been very busily engaged over the past month with a wide variety of activities. On 17th May we held our regular meeting which was followed by an excellent talk by Colin Scott on the work of the United Nations in Israel and Pakistan. Colin was with the United Nations staff on both occasions as a military observer.

Congrats. are in order to our Vice-President, Kevin 3ARD, and his helpers, of whom over half were club members) for the fine work in setting up and manning the station 3WI at the recent Hobbies Exhibition. As a result of this effort, many contacts were made (with public participation) and new members were obtained for the Club and Institute.

The general meeting for June was followed by a screening of films by our film librarian, Laurie 3CN.

Our Social Evening for last month was held at the home of Peter 3XK on 22nd June. All who attended had a most enjoyable evening. These socials are always looked forward to by members and in particular their XYLs and YLs. The latter take this opportunity to discuss among themselves the peculiarities and jargon eminating from their respective OMs whilst operating their stations or are doing some "plumbing".

You are reminded of the club net on Monday evenings at 8 o'clock on 3600 Kc. approx. All are invited to participate.

Club members were active participants in the recent W.I.C.E.N. exercise at Batman (Vic.) and about half of the radio-controlled cars were provided and manned by members.

Our spies report that Hal 3ZOO and Ted 3ZOT are busily engaged erecting masts and Hal's is alleged to be a free standing, 60 footer. Peter 3ZPL is back on the bands after months swotting and is busy making contacts. Bob 3ZO has completed a new power supply and is providing 40w. input to an 832. He is very happy that his t.v.i. problems are over. Lindsay 3ZNS is sadly missed; he is suffering from YLI, so we are told.

Keep in mind club meetings on the first and third Friday of each month. Details of other social events and general club information can be obtained from the Secretary, Harold 3AFQ. 73, 3AHZ.

— • • • —

QUEENSLAND

Joscelyn 4JJ and Rusty 4JM have added a third harmonic to their family in the shape of a 10 lb. 7 oz. baby boy. Whilst waiting for the happy event, Rusty didn't follow the old tradition of smoking fags, no sir. He stoked up the 3BZ tx in order to relieve the mental strain whilst waiting for No. 3 to arrive and worked two ZLs.

In the April issue of "A.R." I mentioned that Frank 4UK was the owner of a Type 3. Well, he was almost on the air. He decided to give it a test before a pre-arranged sked and it blew up. Looks like Frank blew a transformer. Frank, I feel almost certain that I have a similar trannie in the junkbox that will fit, and if so will send it to you.

Another one for Ripley. Merv 4MZ has at last sent out some signals, not without the assistance of Eric. Apparently the only thing personal about this rig is the call sign. Incidentally, he has had his call sign for two years. Les 4XJ is working DX with no trouble. Using s.s.b. of course. Heard some startling news a few days ago. Believe that Vic 4BJ is seriously thinking of going s.s.b. and is considering selling some of his gear.

Joe 4OJ went on a fishing trip out to our famous reef and between he and his mate landed 500—I spell, five hundred pounds of fish. Joe's XYL Val happened to be in the shack, pure co-incidence of course, during one of my skeds with Joe and as Joe was using c.w., I had to write it down for her as Joe was sending. Joe was abbreviating like crazy, and being an ex-commercial op., he sure can abbreviate and I had to write the whole, complete over, so as Val could catch on to what he was saying. Thank goodness for the excellent Morse sent by Steve 4BB each Wednesday and Sunday night. It enabled me to keep up with the difference between dits and dahs.

Ross 4RO has a very able second operator. This bloke even saves Ross from paying the power bill. As a matter of fact, he is also quite modest as Ross doesn't even know who he is, or where he is. But he is getting some nice DX for Ross. The latest being a card from Monaco. Heard on the grapevine that 4HG was on Willis Island, so as extra countries are rather rare these days, I carefully listened at the sked times for him. Narry a thing. VK2s were hearing him, but 4HG must have forgotten his rx or something, as up to the time of writing, no contacts were made. Bob 4RW, who writes the North Qld. notes, is in hospital, being treated for a hernia. Can't hear Bob, have to use the 600 ohm line to talk to him.

Received a letter from Afton Westcott of Atherton, and amongst the news in it was that he had got his foot caught up with his outboard motor. Very virile bloke is this Afton. Most chaps would spell his name as A for Able, F for Fox, T for Tare, etc., but not Afton himself. Able Father Twins or Nothing is how he spells it.

Dick 4ZCK, my spy in Rockhampton, is a bit off colour. He went along to the doctor and told him all about it, but ended up by saying that there is nothing wrong with his appetite. I have never met Dick, but I am told that the doctor said he would have to lose some weight. In other words, the doctor wanted some co-operation from Dick to get rid of Dick's corporation. Your boss told me that one Dick, so wait until he gallops up that little mast of his and then cut it down.

But in all seriousness, Dick is doing a good job for Ham Radio in Rocky. His publicity drive really paid off. At their last meeting 45 members attended and 24 new members parted up with the necessary. Also the Rocky Club is forming a free library to save members money.

The other night my son Peter had to write an essay on the national flowers of the various States of the Commonwealth and asked if I could help him. Certainly son,. Now let me see. Yes, the orchid is the flower of Qld. and so on, until I came to South Australia, and then I made a Boo Boo. Yep, you've guessed it. I told him that the flower of South Australia was the PanSy. I suppose I'll be relegated to the doughouse by the seat of learning in Ayr, but honestly, I couldn't let a chance like that go by, now could I? Thinking of this later, I could feel an attack of poetry coming on, so here goes—

I have often thought with wonder,
Of the things that makes this world,
Such as birds and bees, and sweetly smelling
flowers;
And it sorta makes me speechless,
And a lump comes in me throat,
When I realise these wondrous things are ours.
To fight for life, and struggle on,
To beautify our lives,
You must admit is really quite a feat;
And what's my choice of all these blooms?
I really cannot tell,
Cos an Orchid's really beautiful,
But a PanSy's very sweet.

Now just a sec. whilst I get out of my disguise as Kipyard Rudling, and get back to some more notes.

Bill 4ZBD, who is the publisher of "QTC," has been off work with a bit of trouble in one eye. Evan 4EF has at last been thrown out of hospital and has been on the air. Syd 4SL, with the assistance of Gil Bertram and other members of the Ipswich Radio Club, organised the W.I.A. exhibit at the Ipswich Show, and I believe it was even better than last year. Activities like this are valuable to the cause and life of Ham Radio.

The 10 mx hook-up of a Wednesday night still continues, with 4VJ, 4LT, 4CZ, 4AQ, 4JN, 4WX, 4UB and 4PJ taking part. Leigh 4RH heard the Brisbane boys one night and efforts will be made to QSO later.

Col 4CI is heard fairly often with his homebrew s.s.b., which is performing very well. Al 4LT has had aerial trouble, but will be on again of a Wednesday night looking for country members and their queries.

At the present time, 4WI is trying to reach all members and the 80 mx transmission is quite successful. Alf 4OL will be doing the 80 and 40 mx transmission on Sunday morning, while Rick 4VR will be re-broadcasting the news on 20 mx and beaming for the north.

On 25th May a working bee consisting of 4PJ, 4RB, 4OF, Ray (and his utility truck), Noel, John and the Oakleigh Scouts and Rovers erected a 42 ft. pipe mast stayed at the top by an 80 mx dipole and a 40-20 mx dipole forming an umbrella or inverted vee. Only thing they forgot was a possible use of the mast as a vertical radiator. The GO9s and SCR522s are installed at Alf's (4OL) QTH, but a lot of work remains to get them going satisfactorily. The new rx is to hand and has had some use.

Harry 4HB is staging a comeback, so that is another operator for the R.D. Contest. Don't forget the R.D. Contest, chaps, we almost got it last year. A little more effort and we should have it in the bag. Don't say you haven't the time. Make a dozen contacts and send in the log. If all logs were sent in last year, Qld. would have had the trophy. I feel sure that the R.D. Contest this year will be really tough. Conditions are not getting any better and I think that the phone men, of which I am one, will have a hard time making up any sort of a high score. So it may be of some help to put in a key, and take part in the open section. For the first time in 15 years, I have fitted a key to my rig, so if you hear 4UX on c.w. well it won't be a pirate, unless he sends right handed, I'm left handed, hi!

The Institute is fortunate in having Carlo 4ZCH to assist with secretarial work and we expect to hear a lot from him in the future.

As this issue of "A.R." comes to you, there will be a drive for new members who are not members of the W.I.A. So how about it. If you know of any Ham not in the W.I.A., get on to him. There is no excuse for not being a member. Without a voice, and the W.I.A. is the ONLY voice we have, we would not have Ham Radio. A few quid a year is a paltry amount to pay in order to enjoy this wonderful hobby.

The Christmas Island Radio Club is in action at last, and any books of a technical nature that you may have gathering dust will be very appreciated by them. Send them to Box 638J, Brisbane, or care of the Club, British Phosphate Commission, Collins St., Melbourne.

Well chaps that's the lot for this month, and it is with reluctance that I say it will be my last contribution as Sub-Editor. Use of red pencil by Ye Ed is too severe. I have written the Secretary, Peter 4PJ, informing him that these notes will be my last. It was a lot of fun and I'm truly sorry I can't carry on. Cheers, Uncle Xray.

WIDE BAY AND BURNETT BRANCH

I don't know about money being scare—or do I—but I do know that news is conspicuous by its absence this month. Perhaps it is a good omen as everybody is happy and contented and everything is flowing along serenely, no gremlins worrying anybody and all the ergs and volts doing their stuff and keeping in their respective back yards.

There is no doubt about Pansy 5PS and Claude 4UX. They seem to have an inexhaustible source of news. I can't get anybody around this corner of the woods to fall off his tower and dent in his chassis to make a bit of tasty news, or to run his car down the mountainside to provide a thrill—no sir, they are downright unco-operative.

I do hear that Claude 4UX had been trying to contact the space man to make reservations for the next flight, as he wants to see where the wild waves go to after they leave his shack.

Heard on the grapevine that Merv 4ZMD is saving up his pennies to buy himself a Drake 2B rx. If my guess is right, he might have to raid the harmonic's piggy bank, or if he does not hurry up it will be Royals and Cents, which will give him a right royal time.

The boys at Gympie got together and formed a club within the Branch, as mentioned last month and have as a project a youth radio club. Anybody having a Super Pro, Hallicrafter or National that they have no further use for could donate it to the cause.

Jimmy 4HZ is making progress with the construction of his new rig and when it is completed it will put his t.v.i. troubles in the same place as where he wears his shirt tail and the seat of his pants—behind him.

If any of you fellows would like a mention in these notes just let me know what's cooking at your place and I'll see what we can do for you. 73, Fred Cox.

TOWNSVILLE AND DISTRICT

Bob 4RW is now in hospital and is progressing well; must be those young nurses?

The bands have been very quiet up here, except one night, then it was a record—four s.s.b. stations were on from Townsville. VKs 4KT, 4LK and 4WP were having a discussion on the higher frequencies on how a record could be broken by moonbounce or possibly a satellite? The boys on Willis Island are on most afternoons on the 20 and 40 mx band, but the skip does not favour us here as signals are very weak.

Arthur 4BE has not been heard on the bands for some time, must be building another super sideband rig? John 4DD has been heard on the bands, going into lengthy details over that new flop over tower, must have a look. Ted 4EJ is cockeyed from using the slide rule, making sure of that grid impedance. It will be a receiver to end all receivers, hi Ted?

It has been noted that the bands are very crowded over the week-ends. Lots of Ws can be worked. Arie 2AVA has been heard working some very nice DX. Pity couldn't be heard here though.

Charlie 4BQ's yard looks more like an antenna farm every day. Have you got room for any more? If you look for that Motel here, and you asked any of the locals, the answer is, "Just past that bloke with all the aerials on the right." 73, 4RW.

NOW AVAILABLE! THE 1963 EDITION OF THE

RADIO AMATEUR'S HANDBOOK

BY A.R.R.L.

Price **51/6** plus 2/6 postage

THIS BIG, NEW, REVISED AND COMPLETE EDITION IS AN INVALUABLE REFERENCE WORK FOR EVERYONE

OBTAIN YOUR COPY NOW!

McGILL'S AUTHORISED NEWSAGENCY

Established 1860.
"The Post Office is opposite"

183-185 ELIZABETH STREET, MELBOURNE, C.1, VIC.
Phones: 60-1475-6-7

UNIVERSAL SOUND

A Product of Italy

DYNAMIC CARDIOID MICROPHONE
Model 601

Model 601 is a Dynamic Unidirectional (Cardioid) Microphone for studios, music and public address, strongly built and famous for quality.

Free of amplitude, phase and harmonic distortions. High and low impedance. It offers an additional discrimination factor with a difference of 18 db. from front to back.

Output: —54 db. (1 volt p/microbar).
Response: 50-12,000 c.p.s. unidirectional.
Impedance: 25,000 ohms, easily stepped down to 250 ohms.
High or low impedance selection.
Dimensions overall: 60 x 60 x 155 mm.
(2-3/8" x 2-3/8" x 6-1/8").
Low frequency change switch for use when speaking.

On-off switch on handle.
Detachable connector.

Retail Price: £25/14/0
Plus Sales Tax £2/9/0

Marketed by **ZEPHYR PRODUCTS PTY. LTD.**

58 HIGH STREET, GLEN IRIS, S.E.6, VICTORIA
Phones: 25-1300, 25-4556

SOUTH AUSTRALIA

The monthly general meeting of the VK5 Division—the Division that never sleeps—was held in the clubrooms to a capacity audience, and to silence my critics who suggest that I at times draw the long bow with respect to this capacity audience, I give figures for the night as an attendance of 120 members and visitors. The meeting took the form a film evening, the films being provided by the courtesy of the P.M.G's. Department, and I say without hesitation that the standard of the films shown was the highest as yet, and we have had a number of film evenings to judge by. John 5JC proposed the vote of thanks to the Department and the operator for the night, and in a few well chosen words expressed the feelings of the audience, who apparently were right behind him, judging by the applause which followed his remarks.

QSL cards were then distributed by George 5RX, who, incidentally, had an extra large bundle to pass on, and after a little natter the business of the meeting began. Very little controversial matters were discussed, although Ses 5GP, in submitting the report on the Trustees, held the floor in no uncertain manner and did a notable job. Several domestic matters came up for discussion, which, in view of the fact that they were purely for domestic consumption, will be left out of these notes, just in case any of the "Wise Men of the East" should read them. A very unlikely happening according to my Interstate critics!

The meeting came to an end at the compulsory hour of 11 p.m., although it was only by acting in a somewhat coarse manner and switching off the lights that I succeeded in emptying the room long after that.

Bob 5PU was congratulated at the meeting by the President, Phil 5NN, on his elevation to Dr. Roper, and never missing a chance to get some free advice on my numerous aches and pains, I contrived to sit next but one to him during the screening of the films, but soon discovered that as usual I had backed the wrong horse because his remedy for my pain in the tummy would have undoubtedly been worse than the pain! I discovered later that his degree was Doctor of Philosophy. Trust me!

Understand that our worthy President, Phil 5NN, was conscripted to provide a public address system at a recent gathering of Girl Guides at National Park. One of the Commissioners was a lady of ample build with a voice to match, and she was satisfied to blow her whistle into the microphone and then summon the various companies with hand signals from the other side of the oval. Phil suggested to our reporter that she was mike shy, but judging by the way he looked at me when I rose at the meeting to have my monthly say, I am not so sure!

Comps 5EF, that keeper of the roll of all VK sidebanders, and may I be pardoned for such heresy, reports that the score is now 330 capable of quacking at the drop of a hat. Long time no hear Comps, where were you during my sojourn at Oakbank?

Two or three months ago my usual correspondent for the Port Pirie Amateur Radio Club, Bruce 5ZEG, went down with a very annoying allergy, and with true Radio Amateur cunning, talked his XYL Pamela into writing his monthly letter to me. To all intents and purposes the allergy has departed, but believe it or not, the monthly letters continue to be signed Pamela, XYL of Bruce. I do not intend to comment further on such infamy, except to say that I am filled with admiration at such a display of cunning, and only hope that it will last, because it is many a day since charming and beautiful young women put pen to paper on my behalf, and off the record, I have caught myself casting a few glances in the mirror as I pass, and with my well known modesty I can only say that I am somewhat pleased with what I see. Ahem!

At the last general meeting of the abovementioned club it was noticeable that the membership is definitely on the increase, and one of the associate members is none other than Eileen, the XYL of Bert 5EQ. Her motive is as yet a secret, but it is believed that she is working along the lines that "if you can't lick 'em, join 'em!" However, as my correspondent points out, "who ever heard of 'licking' a Radio Amateur? You push them down in one place and they bob up in another!" Pamela, how could you say such a thing?

The Youth Club is in full swing with the lowest attendance so far being around the 40 mark, and most of the lads are very interested, and one of the older lads, who is studying for his Leaving Certificate this year, sat for the Limited exam in April. Nice work, and hope you made the grade OM.

A working bee to get the club's tx in working order is to be held in the near future and negotiations are in hand to purchase a rx for use by the club for its W.I.C.E.N. net. Considerable interest has been shown in the above by the Red Cross with a view to setting up communications between outlying accidents attended to by the St. John Ambulance and the Hospital. After the club has its gear in order, the Mayor, local M.H.A., Civil Defence Co-Ordinator, and heads of the St. John, Red Cross, etc., will be invited to view what is available and to offer suggestions. Well, there you are, not bad for a country Amateur Radio club, is it? Once again many thanks for the news Pamela, glad to know that the train still goes up and down the main street, and also that a certain large establishment still pours fumes into the atmosphere. Anyway, if you can still joke about it, the old sense of humour must still be around. I salute you.

Have been making several enquiries lately concerning the whereabouts of my old sparring partner on the Council, Jack 5JD, and was surprised and pleased to read in the morning paper today that he had narrowly escaped drowning in the Murray, around Goolwa way. Jack was certainly lucky, whilst he was being rescued, his companion in the small bondwood dinghy, which sank in mid stream, was drowned. Would have preferred to have heard about you in happier circumstances, Jack.

Frank 8AE is almost ready to leave Alice Springs and should be seen around the metropolis any day now. His final letter to me contained a distinctly bitter ending. He told me the next time I heard him on the air it would be with a quack! Another good man bites the dust, soon I will have to talk to myself. Wait a minute though, Pincott nearly had me in when he was over, I must double the guards!

Norm Coltman is about to change his QTH from Rose Park to Payneham, so my spies tell me. Don't see much of him these days, but at least he continues his journey toward the East. Still out every night, Norm?

5PS GOES SIDEBAND

Our VK5 scribe has finally made it! Even if he had to acquire the equipment. Test transmissions have been heard recently. Carrier suppression is excellent, but it is difficult to resolve. At first it was thought to be "Dad Dad," but careful listening now makes it sound more like "Quack Quack".

Technical details are sketchy, but we understand the designer has resorted to two unusual features. He has achieved a physical layout which strongly resembles the owner and has applied the unusual colour scheme of black on top and a delicate shade of green for the rest.

Our VK5 technical correspondent tells us that those who have seen the equipment feel sure the modulation is affected by a low frequency oscillation in the final when the equipment is mobile. 5PS, however, insists the trouble can be overcome by inserting the equipment in an oven for about three hours; and we expect to know the results of this experiment next month.

We understand a large number of these rigs have landed in VK5, but so far 5PS has the only one in captivity.

—Khaki Campbell.

Did you notice that VK5 is to be the host Division at the next Federal Convention. Blime! I will have to tread carefully that week-end. Fancy VK5 full of VK3s over Easter. We must have committed a dreadful sin to reap that punishment!

Pete 5FM is reported as still pursuing the elusive "big one," armed with fishing gear galore and a trailer boat. There is no truth in the rumour that he is planning extensions on his arms to help him describe the ones that got away. Isaac Walton lives again!

Al 5ZC and Ses 5GP are busily engaged in installing a hot water system in the QTH of Al, but for some unexplainable reason at the moment of writing, the hot water is non est, which to you peasants may be taken as being up the spout. Get it, hot water up the spout. Get, hot water—OK skip it—I thought it was funny. Anyway, Al and Ses are clothed in protective clothing and dark thoughts, and should the hot water decide to issue forth, they even have an umbrella each. Hope springs eternal, etc., etc.

Rumour has it that the wild man from Lucindale, Arch 5XK, is about to become the proud owner of an automobobble. Understand he has been seen garbed in motor coat, gloves, goggles, safety strap, parachute and shoehorn. In keeping with his leanings toward the unusual, the engine of the car is said to be mounted sideways with a double spring movement. You wind one whilst the other is running down. Plays 78-33-15 and 7½-mono or stereo. The Lord help the motorist who crosses his path! He will learn some mighty interesting insinuations with reference to his parents!

The Admiral (5ZAH) missed his code by nine points at the last sitting, passed his sending but slipped on the receiving. With true Naval spirit, he is by no means discouraged, and is determined either to get it next time, or fire a salvo over the examiner's head as a warning!

Luke 5LL has been having a field day with the c.w. signals on 14 Mc., and in his own words, "Is as silly as ever he used to be in the good old days." Personally, I have heard him calling and working them, but I have never even heard one dot or dash from the other end. Perhaps he has transistors for eardrums.

Heard an old-timer on the band the other night, none other than Huck 5JU. Years since I heard him, and can't remember when I saw him last. Hearing you again Huck, gave me an acute attack of nostalgia. Oh for the good old days.

No doubt about this Ted 5JE. I spend all my time stressing in these notes that he is a fanatic about 7 Mc., and won't listen to any other band, no matter what happens, and then he goes and takes out the 3.5 Mc. c.w. section in the VK-ZL Contest! They must do it on purpose to trick me, there could not be any other reason.

One of the new set-ups of the new Council of VK5 is to send out to all those requiring it, a copy of the minutes of Council and general meetings. Now this I consider a good idea, no longer do I have to ring various jokers and spend hours pumping them for information as to the happenings of the various meetings, but can read them at my leisure. Unfortunately for me, I had to pay one shilling excess postage on the first one I received, and can only deduce that some new member of the Council is carrying on the vendetta of the old Council. How could you Pat 6US? Half my weekly pocket money gone!

Jim 5JK well and truly settled in his new QTH now, and keeping to his sworn statement that it would be years before he had time for on-the-air work. So much so that he has already erected a new mast and has been heard whispering sweet nothings into his microphone.

Joe 5RC (ex-GM3HOM), one of my favourite Scotchmen, will have left our fair land to return to England at the end of May, via the States. He has asked me to convey to the boys of VK5 his thanks for making his stay of two years such a pleasant one, although he is sorry that circumstances did not permit him to be as active as he would have liked. He suggests that he will keep in touch with the doings in VK5 through the magazine, and in an excess of generosity even went as far to suggest that if he remains long enough in G land, he might even hear VK5PS. Well you never know Joe, I could bounce off of a satellite! Good luck, OM, nice to have had you, and hope you may return some day. By the way, you never got round to letting me into the secret of what they wear under those kilts. You promised, you know!!

Harry 5MY rushed up to me at the meeting to tell me that he had paid his licence at the local post office and then received a letter from the Department threatening to cancel his licence because he had not paid up. You astound me, that such wickedness should exist. Off the record, my c.w. friend, you and me too, see you in jail.

Joe 5JO, paying a visit to Cec 5CD, bumped into a well known old time radio identity in "Ned" Kelly, who used to be the technical development section secretary many years ago, also Jack 5LH and George 5GS, and quite a get-together was held. How was the red wine gentlemen? Don't answer that!

One of my novice spies reports that in his travels he bumped into Darcy 5RJ, of Kadina, and if the propaganda works, he should make a re-entry into Amateur Radio at any time. Nice work Darcy, think of the years that you have missed.

Talking of spies, two of my Eastern friends from Mount Gambier decided to pay a visit to the South Western VK3 Convention at Warrnambool. Welcomed with open arms and showered with hospitality, they were somewhat dismayed to hear a letter of apology read out by the Secretary 3AKN to the effect that Pansy 5PS could not make it, but not to despair, he would be sure to have a couple of spies planted at the Convention! In view of the fact that Col 5CJ and Stuart 5MS were the only two VK5s present, the sudden coldness that descended on the gathering in their direction was understandable. Sorry fellows, that's how dangerous I live over the border. Anyway, the coldness did not last long did it? Believe they had the time of their lives. Why didn't you put them up against the wall, Don 3AKN?

Glancing through last month's Divisional notes I could not but notice all the flattery aimed in my direction. Crawling will get you nowhere. 73, de 5PS—PanSy to you.

WESTERN AUSTRALIA

How the winter rain doth fall! With the way the weather has been lately, not so cold around this neck of the woods mark you, but wet, man, wet! Perhaps we should all be like Allan 6HR and start building v.l.f. tx in the form of an organ, as mentioned last month. These are a delight to the eye and the ear. You can change frequency by pushing a key with your finger, in fact, you can push several keys with several fingers and transmit on several frequencies at once. Harmonic transmission is permitted as well as the fundamental, and further, you can wobble any frequency about its mid point. And there are no R.I's. What more do you want! Hope everything goes well for you Allan.

As a matter of fact news is coming in from all directions about Allan-type Hams, for we find that Allan 6AB recently gave his daughter away in marriage. Hams from various parts of the State attended; Bernie 6KJ from Albany and Herb 6XO from Katanning, and Pat 6PH representing Perth. I believe the whole thing was run with car-trial precision—two-way radio and so on. And we haven't mentioned the bridegroom. Quite unimportant of course, but his name is Graham, and I feel that you should know just how the possession of a Ham ticket can influence some families. It is on record that the outcome of recent discussions between Allan and Graham was "No ticket, no marriage." So, here comes another new Ham! Congrats. and best wishes to you both.

Single sideband is still claiming new adherents and we find that Bill 6BA is cutting the unnecessary bits off the carrier. M-m-m? Yes, well, I know there isn't any carrier either, but the signal still gets out. Herb 6XO is also badly bitten and as mentioned last month was finishing off. This has now been completed and she's "on the air." Good work, chaps.

Also mentioned last month was the fact that Clarrie 6XG had drifted East (this has nothing to do with changing frequency). We've had word that the trip is still in progress, for Mac 6MM also attended the I.R.E. Convention and saw Clarrie and commiserated with each other. That means I'll take an even money bet that they told each other how good W.A. is!

Not all the Hams go away, of course. Allan 6MO, our worthy Secretary, has been heard on 20 and I'm told that Kerry 6EA has been heard. Also I understand that one local Amateur, Nollamara direction, had trouble hearing the VR0 side of a contact on 40. Does that ring a bell with somebody?

Talking about being on the air, a spy tells me that Dave 6DG is having an attack of hamitis and is back on the breeze. Good for you, Dave, and it's true what they say, once a Ham, always a Ham.

This applies also to a man named Trigwell (better known to you mob as "Trig"), who has been toying with the possibility of taking out a call sign again. Never mind about doing the wrong thing, Trig, after all the worst that can happen to you is that someone will get the R.I. on your tracks. Get with it, man, and the best of luck!

D.C CONVERTER TRANSFORMERS

Miniature toroidal transformers for transistor d.c. to d.c. converters. Fully encapsulated in epoxy resin. Suitable for horizontal or upright mounting. Voltage doubler circuit.

12v. in, 300v. 100 mA. out **£4**
12v. in, 300v. 200 mA. out **£5**
Other voltages up to 350 watts output supplied to order.
400v. Silicon Rectifiers **7/6**
500v. „ „ **9/-**
800v. „ „ **12/6**
7 amp. Power Transistors **28/-**
Above prices subject to sales tax. Carriage free.

ELIZABETH ELECTRONICS
P.O. Box 7, Elizabeth, South Aus.

Repairs to Receivers, Transmitters; Construction and Testing; T.V. Alignment; Low Noise Xtal Conv., any frequency, **£18/10/0** plus tax.

ECCLESTON ELECTRONICS
146a Cotham Road, Kew, Vic. WY 3777.

OBITUARY

"GEOFF" D. ASCHMAN, VK7GA

It is with deep regret that we record the passing of "Geoff" D. Aschman, VK7GA. Geoff came to Tasmania from New Zealand and was licensed in 1948. He took a great interest in Institute activities and was President of the Tasmanian Division during 1957. He showed quite a few young members the way towards their A.O.C.P. Geoff was an engineer in charge of Transmission Line Design and Construction with the Hydro-Electric Commission of Tasmania.

Members of the W.I.A. extend to his relatives their deepest sympathy.

Incidentally, Len 6LG is a regular signal on a number of bands and not only at night, either. For now Len has retired, a Ham's life is a busy one. I enjoy your soliloquies, and I'm sure others do, too. Reading the mail recently, I heard you mention that some old codger was told he was growing deaf, and he replied that there was one way he could still grow and that was to grow deaf. With the signal that comes from 6LG, it wouldn't matter if he was deaf, he'd still hear it! Very nice copy, Len.

There is a word creeping into our language lately that I'm not sure that I like. Its expressive, not rude, and quite correct if used in its proper place. Wait a moment! I haven't told you what it is yet! The word is "pipeline". Now, this is OK if you are describing a water feed from a reservoir to a city, but how it describes such things as having a pipeline into another firm or office. However, the point of all this is that my spy has told me that 6BD has a pipeline into Alaska with his quad. So you see, I thought I should explain so you wouldn't get a mental picture of a 10 ft. diameter pipe running across Australia in the general direction of America.

Odd things like that remind me that at the last Council meeting, there was talk about "the old days" when exhibitions were held and the demonstrator used a Tesla coil about 6 feet high. Cigarettes could be lit from the sparks and in fact you could even draw sparks from the blonde assistant. The good old days? Why, these were the days when they were tossing out germanium crystals (or equivalent) because they had reached their limit. Didn't even think of adding another cats whisker and making a transistor. 73, 6LS.

— . . . —

TASMANIA

Apparently my Divisional notes for the May issue went astray in the course of post, so I had better give the most important details from that effort. The Council appointments for the year 1963-64 were: Tom 7AL as President, Snowy 7CH and Len 7LE as Vice-Presidents, Snowy 7CH as Treasurer, Snowy 7CH and Ted 7EB as Bulletin Editors, David 7ZAI as Technical Editor to the Bulletin, Terry 7CT and Tom 7AL as Distribution Committee for the Bulletin. The two new members of Council are Ted 7EB (correctly dubbed "Ear Basher") and David 7ZAI. David has the privilege of being the first Limited licensee as a Councillor and heartiest congrats. to you, David. Charles 7KS has been appointed an ex-officio Councillor so as to act as Divisional Secretary, and we welcome you to that onerous job Charles.

Terry 7CT has indicated that the A.O.C.P. class he has conducted over the past year or more is about to come to an end, so we wish every success to the examinees to face the music soon. Terry has indicated that he will begin a new class probably in February next. Congrats. on a job well done, Terry, we are much indebted to you.

At the June general meeting we were very much impressed by the address and film shown by the director of Civil Defence. At the same time, we were made aware of the tremendous problems and opportunities for us to help our fellow beings and I had the impression that all present felt the same way. We were delighted to see a wonderful roll up at this meeting, despite the bitterly cold weather. To name just a few, Ray 7TR, Brian 7BP, Neville 7NC, Pat 7GV, Tiny 7JD were welcome faces. Doug 7DW was also present, after his wonderful trip by way of annual leave on the mainland through VK3 and VK2, just completed.

Several Hobart stations were pleased to help the T.V. Servicemen's Association members get an insight into Amateur Station operation late in May. Perhaps, t.v.i. problems, if and when they arise, might receive a sympathetic consideration from these chaps, now they have seen Amateur Stations at work. 73, 7ZZ.

NORTH WESTERN ZONE

No doubt due to the long and loud blast in last month's notes, we had a good attendance at the last zone meeting. Better turn up, you chaps, or I will let 7MX loose again! We were pleased to welcome visitor Peter Chalk, and also Len 3LN and XYL, who have been touring VK7 with car and caravan. This car is fitted with f.b. mobile s.s.b. rig, and has been giving good sigs throughout the State. Much time was spent probing in the innards of the unit after supper, and Len said a few words about the facilities available to his zone which made our mouths water.

As we have now decided to retain the Lakins Hall as a permanent meeting place, don't forget to bring along some db. to pay for it. Very pleasing to see headquarters come to our assistance in this matter. The auction next month should also help.

Basil Barnes sits for his ticket in July, so we all wish you the best of luck, Basil. Pity there isn't a couple more of the chaps in there with you. 73, 7ZBH.

HAMADS

Minimum 5/-, for thirty words. Extra words, 2d. each.

Advertisements under this heading will only be accepted from Institute Members who desire to dispose of equipment which is their own personal property. Copy must be received at P.O. Box 36, East Melbourne, C.2, Vic., by 8th of the month, and remittance should accompany the advertisement. Call signs are now permitted in Hamads. Dealers' advertisements not accepted in this column.

COLLINS equipment: Transmitter 32S1 with 512F2 power supply and Collins Dynamic Microphone, £385. Receiver 75S3, £365. All as new. VK4JE, 21 Hurd Tce., Morningside, Brisbane, Qd. Phone 95-2541.

FOR SALE: AR7 Communications Receiver, 140 Kc. to 25 Mc. In very good order. Phone 84-3182 (Melb.)

GELOSO Rx, perfect order, £105. All-band 90 watts Tx, Geloso V.f.o., Class C Modulator including Woden Transformer, all power supplies, unit is complete, good working order, £35 the lot. VK2AEB, Box 446, P.O. Griffiths, N.S.W.

SELL: Geloso 222TR Tx, £85. Geloso 209R Receiver, £140. Both as new, in crates. Also a Mosley TA33 Tri-Band Beam Antenna, £45. VK3SW, 2 Adelaide St., Highton, Phone Geelong 86881.

SELL: Portable 40 mx Transmitter, xtal controlled with two xtals, approx. 12w., completely self contained, £12. Class C Wavemeter, with in-built power supply, £10. 522 Transmitter, £3. Power supply specially built for 522 (no rectifier), £4. George W. Baty, 79 Bealiba Road, Caulfield, Vic.

SELL: 60w. c.w.-a.m. transmitter with power supplies, complete. Geloso v.f.o., 6146 final, modulator EL34s Class B, all-band final, 80-10 mx band switched, fully metered, relays, etc., excellent working order, £50. VK4NB, N. Wells, 95 Gatton St., Mt. Gravatt, Brisbane, Qld.

WANTED: BC221 Frequency Meter in good condition, complete with crystal, calibration book and a.c. power supply. Particulars to H. T. Swanton, 16 Karma Ave., East Malvern, Vic. Phone 211-3716.

WANTED TO BUY: Geloso Transmitter, Model G222TR. Cash. VK-2KT, 57 Palace St., Petersham, Sydney. Phone 56-3955.

WARBURTON FRANKI

AFTER STOCKTAKING SPECIALS

• POWER TRANSFORMERS

A & R type 1955: 285-0-285 v. at 40 mA., 6.3 v. at 2.5 a.

A & R type 1917: 280-0-280 v. at 50 mA., 6.3 v. at 0.6 a., 16 v. at 0.45 a.

A & R type 1916: 325-0-325 v. at 70 mA., 6.3 v. at 2.25 a.

15/- each + S.T. 25%, + Pack and Post 2/- each

• SPEAKER TRANSFORMERS

Fully cased and sealed type, suit 2 to 4 ohm speakers. **Impedances available**: 500, 600, 1,500, 2,000, 3,000, 5,000 C.T., 7,000, 14,000 C.T., 15,000 ohms.

10/- each inc. Pack and Post

• MICROPHONES

Dynamic hand type. High impedance. Size: $2\frac{5}{8}$" x $1\frac{3}{4}$" x 1". Built-in stand.

24/- each + Sales Tax $12\frac{1}{2}$%

• RECORDING TAPE

Grundig $5\frac{3}{4}$" 1,200'. Supplied in attractive plastic case.

37/10 each + S.T. $12\frac{1}{2}$%, + Pack and Post 1/-

• PICK-UPS

Attractive plastic arm fitted with Aust. made turn-over crystal cartridge fitted with L.P. and Std. sapphire stylii.

25/6 each + S.T. 25%, + Pack and Post 6d.

• DUCON ELECTROLYTIC CAPACITORS

TYPE EC metal cased upright type with mount foot.

25 μF. 25 V.W. **1/9 each** + tax 25%		
8 μF. 300 V.W. **2/- each** + tax 25%		POST
16 μF. 300 V.W. **2/6 each** + tax 25%		
8 μF. 450 V.W. **2/3 each** + tax 25%		FREE
16 μF. 450 V.W. **3/- each** + tax 25%		

TYPE EE metal cased upright type with metal mount foot.

25 μF. 25 V.W. **1/9 each** + tax 25%	POST
100 μF. 25 V.W. **2/9 each** + tax 25%	FREE

• CRYSTAL PICK-UP CARTRIDGES

Turn-over type C/W. L.P. and Std. sapphire stylii.

18/- each + S.T. 25%, + Pack and Post 6d.

• SWITCHES

Double Pole, Double Throw

Eight terminals, toggle rating 2 amp. 250 v.a.c. type BU. **5/9** + S.T. 25%, + Pack and Post 6d.

Single Pole, Double Throw

. . . with centre off position. Rating 3 amp. 250 v.a.c. type 3450. **9/4** + S.T. 25% + Pack & Post 6d.

• EMPTY 7" TAPE SPOOLS—BOXED

5/9 each + S.T., +Pack and Post 6d.

• PUSH-BACK HOOK-UP WIRE

7/010 Cotton Covered with Rubber Insulation. 100 foot reels.

4/6 reel + S.T. 25%, + Pack and Post 6d.

• SILICON DIODES

400 P.I.V. at 1 ampere.

6/3 each + S.T. 25%, + Pack and Post 5d.

NEW Transistor Audio Amplifiers

Four Transistors, push-pull output. Suits speakers 8 to 15 ohms. Works off 9 volt battery. Size: 3" x $1\frac{1}{2}$" x $\frac{3}{4}$".

64/- + S.T. 25%, + Pack and Post 9d.

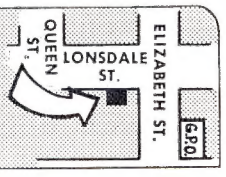
• Transistor A.M. Tuners

Three Transistors and one Diode. Supplied with gang, tuning knob and ferrite aerial. Works off 9 volt battery. Size: 4" x $2\frac{3}{4}$" x $1\frac{3}{4}$". **112/-** + S.T. 25%, + Pack and Post 9d.

May be used as Tuner with Hi-Fi Amplifiers or with the Four Transistor Audio Amplifier to make a seven Transistor Radio.

WARBURTON FRANKI

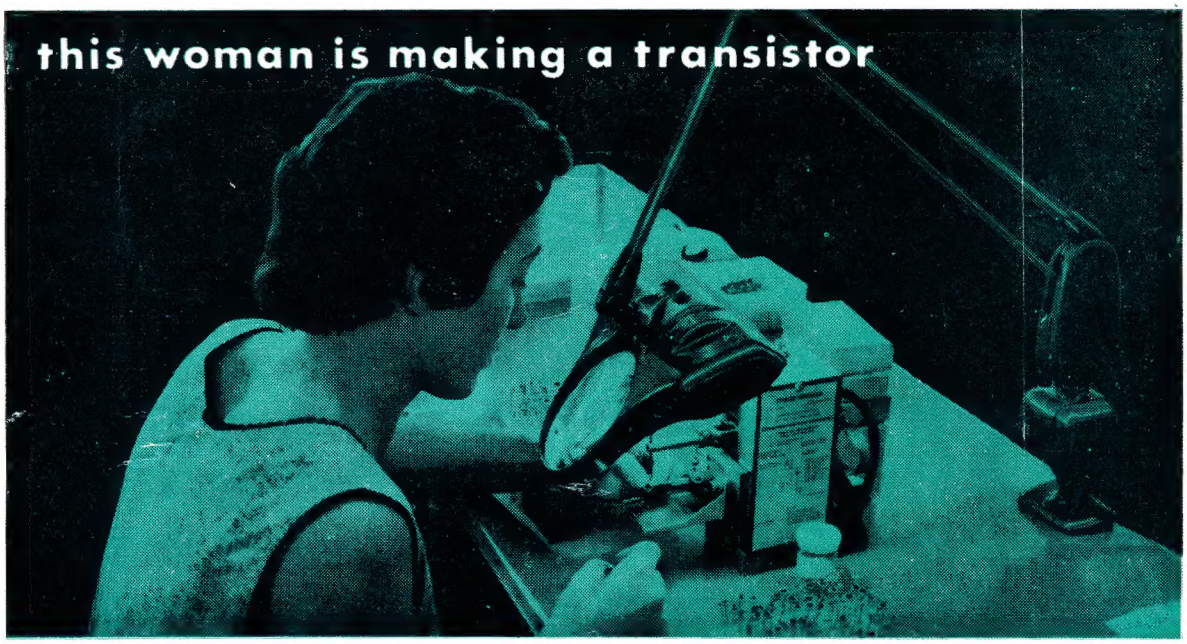
359 LONSDALE ST., MELBOURNE — MU 8351



• TRADE ALSO SUPPLIED

• OPEN SAT. MORNING

Please include postage or freight with all orders.



Seen above: "Base tab assembly spot welding", one of the mid stages of AWV transistor manufacture.

Pictured below: A technician from the Commonwealth Acoustic Laboratories positions an AWV transistor in one of the free Government hearing aids.

PHOTO BY COURTESY OF COMMONWEALTH ACOUSTIC LABORATORIES

AWV

AMALGAMATED WIRELESS VALVE CO. PTY. LIMITED

SYDNEY • MELBOURNE • BRISBANE • ADELAIDE